CAMERA SECRETS OF HOLLYWOOD

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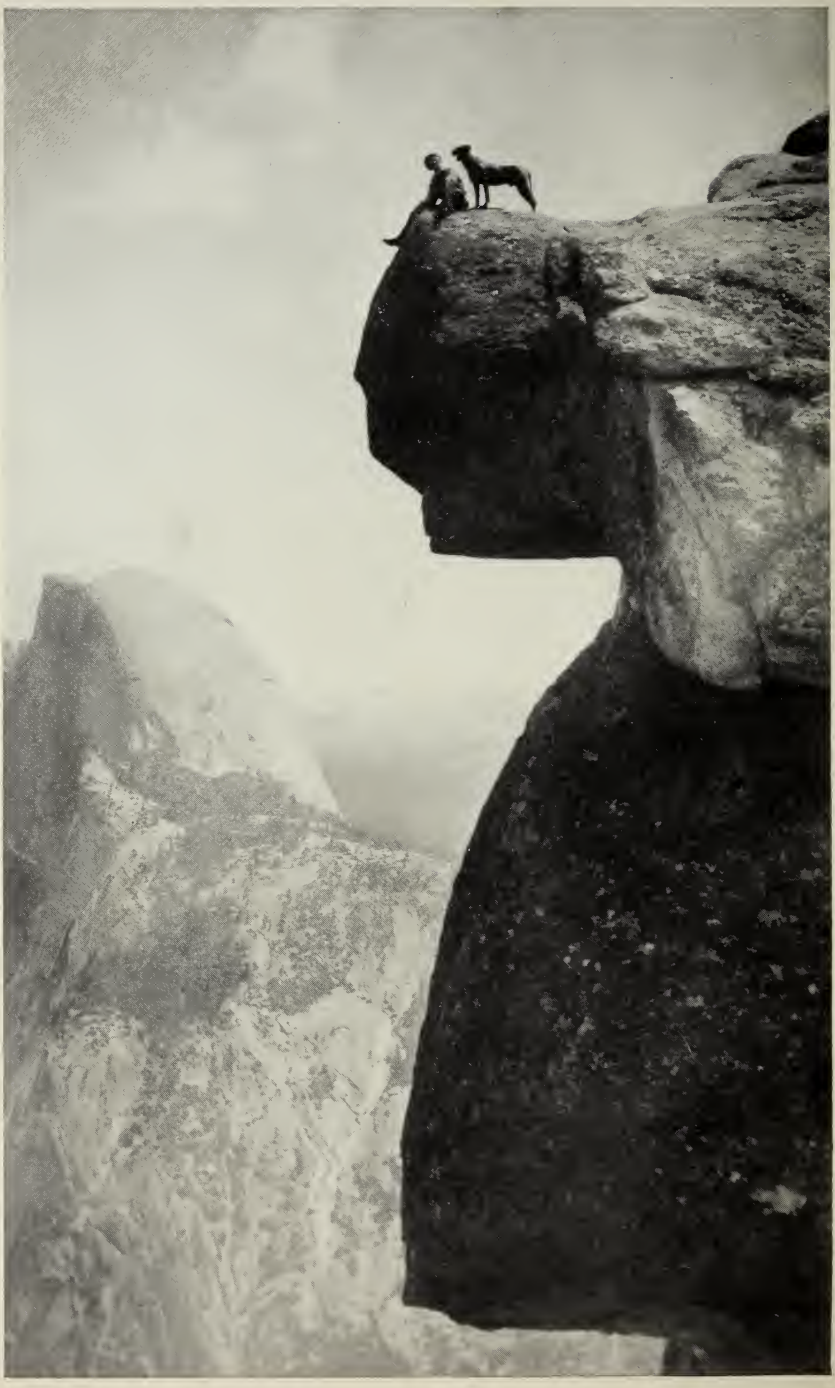
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DAVID H. SHEPARD



1—*In Search of Adventure.*

CAMERA SECRETS OF HOLLYWOOD

By
ROBERT C. BRUCE
and PAT DOWLING

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Simplified Photography
for the Home Picture Maker

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BY

Camera Secrets Publishing Company
METROPOLITAN STUDIOS
HOLLYWOOD, CALIFORNIA

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Never photograph without a reason;
The better the reason, the better the picture.

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Chapter I

SIMPLIFIED PHOTOGRAPHY

AN AMUSING account appeared some time ago in one of the humorous weeklies describing a typical scene where a young couple were presenting, "with profuse apologies," some movies of their vacation in Colorado. The pictures were with sound accompaniment, the sound being mainly the voice of Elmer making alibi thus, "Well, you can't just see what this is but take my word for it it was a perfectly gorgeous view from that point, and there should be a snow-capped mountain in the background." Then Elmer's wife would chime in with a little gurgle to the effect that, "That's Elmer over there on the rock. Yes, it's a little dark but I guess I got my hand over part of the lens right there. Now wasn't that perfectly silly of me?"—and so on for reels and reels until the best friends finally got their hats and coats and with mutterings about having to go home and let the dog out, were off in disgust.

And it would have been so easy for Mr. and Mrs. Elmer to make the pictures good while they were about it if they had only taken the simple little apparatus which they found in the Christmas stocking from Uncle Philip and used just a few more minutes of time before the bus left for Manitou to make a "good" shot of the view.

The human element, which is to err, is still with us, although the film manufacturers like Eastman, Dupont, Agfa and the others with super-sensitive stock and the fine laboratory work that one can get, have made it easier and easier to get good pictures under conditions which are far from perfect for light and climatic variations.





2—(Upper) *An island set-up.*
3—(Lower) "*Camera.*"









4—(Upper) *The Skyline, by Jesse G. Sill.*
5—*Under Difficulties.* 6—*Over the Bounding Main.*
7—(Lower) *"Number, please."*

Manufacturers of cameras such as Eastman, Bell and Howell, DeVry, Cine-Ansco, Victor and now Stewart-Warner have done great work in getting precision machinery of amateur cameras down to the simple and practically fool-proof stage. There are less gears to get out of order and wear, less parts to thread up and in all ways simplification has been the keynote. Making it possible for the amateur to get as good results as the highest paid professional cine photographer has been the objective of the manufacturer, and likewise the purpose of the authors of this little book is to help make movie photography still more simple, and incidentally more enjoyable.

This is not a text book of photography. It merely attempts to set down a few simple principles of making good pictures so that he who runs may read, and the next time he is out in the field with his movie camera or his kodak, may remember a few of the points which will be of assistance to him as a guide in avoiding some of the common errors . . . and heighten the quality of his work. As a reference book it should find a place in everyone's camera equipment.

Of course, if anyone wishes to accomplish much in specialized photography, intensive study and application to that particular branch, whether it be portrait, X-ray, studio, newspaper or pictorial picture-making, is absolutely necessary. But to the amateur who wishes only to have clear, well-composed and satisfactory pictures, intensive study is not only unnecessary but will lead him into a labyrinth of despair with the resulting pictures being exceedingly mediocre, and he will find that his wished-for pleasure in picture-making has disappeared, its place being taken by "great gobs" of extremely unsatisfactory work.

Chapter II

HOW IS YOUR EXPOSURE?

ANY DISCUSSION of the subject of exposure could fill many volumes and contain technical data which would confuse the mind of the striving movie photographer so badly that he would probably throw his camera into the nearest ash can and give up in disgust. But we will try to eliminate as many of the painful details as possible, and concentrate on the few elements of information most essential to the making of good pictures with the least amount of study.

Let us suppose that the amateur has examined his camera and the instructions which go with it sufficiently to know how to load it; suppose that he is in good picture country and that the light appears to be normally good. Suppose also, the amateur knows that a certain amount of light is necessary to pass through the lens to etch the image of the prospective picture on the film.

There are three things which the photographer is likely to do . . . three possibilities, or rather liabilities. Over-exposure, the correct exposure, or under-exposure. The problem as far as possible is to eliminate the first and third hazards.

You are likely to begin a consideration of a lot of different elements which affect the exposure—latitude, altitude, the season of the year, the direction of the sun, the time of day, the subject, the type of country which serves as a background, and the relative strength of the sun on that particular day. It would be easy to become baffled.

Let's take a hypothetical case, for instance, assuming that the picture to be photographed is a rural scene—in the medium

distance a group of cows, back of them a wooded knoll, and cumulus clouds beginning to form in the sky.

Probably the quickest way to arrive at a decision of what should be done is to follow the typical procedure of the average professional cameraman. His first move would be to glance at the sun—after, of course, a general look at his subject. He notes that the atmosphere is clear and will probably remain so for perhaps the next five minutes which would be time for him to make his shot. Noting the height of the sun, he would probably glance at his watch to check the time of day. We suppose he is a man striving for the best effects, and because of this he is in the field early in the day, realizing that the best results in landscape work are to be obtained before ten-thirty in the morning (or after three p. m.). For that reason suppose it is nine o'clock on a June morning. Because we are dealing with a professional cameraman, he already has his camera, be it of still or movie variety . . . firmly planted . . . and leveled on a tripod and on solid ground. Because it is a June morning he realizes that the light of that particular month is the strongest of the whole season, as far as the Northern Hemisphere is concerned.

The light, becoming strong in May and continuing so up to the latter part of August, is in its most valuable period at the time of year when most amateurs are taking their vacations, thus giving a fortunate break to the "average" movie-maker who is in the game for pleasure.

Subconsciously, our professional photographer has already taken care of the latitude factor in his mind, as he does most of the other elements, quickly and without realizing why he does so. (As the sun travels North in early summer, naturally the light increases the nearer the picture-maker travels toward the North pole.) This little joker regarding latitude has fooled many a professional cameraman when taking pictures in Alaska or in the Arctic regions, as the average man in judging the light strength of the Northern countries is very prone to over expose, not realizing the great strength of the summer sun in the North.



8—*Tonquin Valley, Alberta, Canada, 10 A.M. in August. Elevation 8,000 feet, haze in distance caused by smoke of forest fires. Exposure 1/25 of a second, aperture at 16.*



9—*By stopping down to 32 and using the exposure of 1/5 of a second the operator was able to photograph the deepest shadows and still retain his highlights in this architectural study. Photo by Crandall.*



10—*3-A Kodak used. Death Valley, California, 10 A.M. Clear hot day in May, 200 feet below sea level. 1/25 of a second exposure, aperture at 8, using 4-time filter.*

Suppose the scene we are discussing is in one of the Northern states of the United States and at an altitude of about a thousand feet. (And just as a reminder, whatever aperture is decided upon, will be good up to five thousand feet; and between five and ten thousand feet the aperture should be decreased one point.) This is one thing well worth remembering if the summer vacationist is doing his shooting in mountainous country.

In the professional's mind all of the items have already been decided, due more to past experience making it possible for decisions to be made almost without thinking, rather than from special ability to remember all of the items and check them off one by one in his mind. The professional reduces the question of exposure more to a sense of average, puts the diaphragm in a certain position, realizing that there is a maximum of light and a minimum, and trying to get into the center of it.

If he has forgotten or overlooked any one of these points he is likely to be wrong. He has reduced the years of his experience to a sense of being able to "feel" just the right exposure. It is this acquired sense of feeling which must be short-cut for the amateur, giving him the ability to do that which it has taken the trained man years of time and many reels of poorly exposed film to acquire.

Waiving for a moment, the actual stop or aperture decided upon, we may presume that the professional cameraman has studied his picture as far as composition is concerned. We'll not go into the many elements of camera angles here because a chapter elsewhere will be devoted to a few simple and helpful rules regarding desirable composition.

Where's the sun? Let's go back to our first kodak or first experience with a movie camera. The average dealer in photographic supplies has probably advised the amateur on his first pictures to be sure to have the sun directly at his back. But our cameraman, being a professional, will more than likely disregard these instructions and strive for either a cross light, or, if the picture has considerable shade in it, a backlight, shoot-



11—*Lake Louise, Alberta, Canada, 10 A.M., September, 5,500 feet elevation. 1/25 of a second exposure, aperture 8, 4-time filter.*



12—*Little White Salmon River, Washington, 11 A.M., July. 1/50 of a second exposure, aperture 11.*



13—*The Pacific Ocean at Point Lobos, California, 10 A.M., January. Bright sun. The action of the waves is stopped with the exposure of 1/100 of a second, with the aperture at 8. Notice the seals on the rocks in the distance.*

ing directly under the sun. This type of lighting, by thrusting the shadows into the picture, gives roundness and definition to the subject unobtainable by direct, or flat lighting, which is usually recommended to the amateur.

Because of this type of lighting, cross or back, and the dependence placed upon the shadows for pictorial effect the professional increases his exposure one stop, since he is now photographing for the shadows and letting the high lights take their own course.

We suppose that the photographer under discussion is using panchromatic stock with a K1 filter so he can get the clouds and he has thus reduced his aperture again one and a half stops to take care of the addition of the filter. Because of the background including several important features, the photographer will have to make some concessions as to speed in order to carry the distant landscape. If the professional has been right so far in all his deductions—which have been made in a few seconds' time—he will still have to worry about or at least consider, the length of his lens, whether 1.5, 2.5, 4.5 or 6.3., etc., all of which figures require a different exposure. He will also give thought to the speed of his camera which is governed by the number of degrees of his shutter as well as the speed at which he cranks.

By this time the amateur photographer who has attempted to follow these hypothetical deductions, in following what is supposed to be going on in the mind of the professional cameraman, has probably thrown up his hands, kicked over his camera tripod and dashed off to the nearest ice cream parlor to drown his sorrow in sarsaparilla.

However, and this with a sigh of relief, it is quite unnecessary to get all warm and exercised, because thanks again to the inventor and the manufacturer, all of these so-called sub-conscious thoughts—the professional "feel" of the strength of the light, the latitude, the altitude, time of day and year, may be eliminated, or rather reduced mechanically to such a great extent that the amateur need not worry regarding all or even

any one of the items, if he has simply had the foresight of securing one of the many good exposure meters now on the market. Study of one of them for fifteen minutes will probably give the amateur a better understanding and a surer result than the professional photographer has been able to acquire and turn into a sixth sense by many years of experience.

Now it is only a question of combining the results to be obtained by the exposure meter and the capabilities of the camera with a few much worth-while tests, making notes on them and not trusting to memory. Half a dozen test pictures made by following the exposure meter and adjusting by these deductions for the particular camera you have acquired will give the knowledge that it would take years to acquire by starting out to shoot haphazardly and trusting to luck. By carefully noting these results applied to his own camera, the amateur will solve the question of exposure forever and acquire in a short time that same sense of feeling of exposure which took the professional years to accomplish.

Until thoroughly acquainted with the camera, use the meter on every subject that is likely to mean a change in the value of the light—and that means every subject you will take. The question of exposure has been the one great bugaboo in simplifying photography. But fortunately all of the best experience of the years of the professionals, plus the inventors' skill have now been combined into the absolute answer, to eliminate one more point at which the human equation is likely to be the factor which makes the picture go wrong. And luckily the price of one week's poorly exposed negatives will pay for even the most costly of these highly essential little articles.

Chapter III

HERE COMES THE SUN

ONE OF THE MOST important points in all photography—second only to the proper exposure—is lighting. As was mentioned in the previous chapter, cross and back lighting is always preferable to flat or direct lighting, because the former, by the addition of shadows, gives roundness and results often in a stereoscopic effect. A good example of this may be seen on page 19, Scene 14, showing direct or flat lighting. Two minutes later, under the same conditions except that a back light is used, the yacht is again photographed, the result being a marine with far more pictorial value and striking effect than contained in the previous shot (Scene 15). One is a striking study, the other just a plain picture of a boat.

If you follow the kodak instructions which came with your first Brownie and photograph everything with your back to the sun, you will be quite limited in the scenes you can get. The other method of securing effective cross and back lights widens your scope of angles, which will also be extremely helpful when you later consider the composition of the picture itself.

In picture 19, page 21, we have an odd example of the use of shadows, but with the main subject in a flat light. Because of the cloudy conditions of the sky, the cameraman was unable to use either cross or back light, but still wishing to make a picture, he stepped back into the timber so that he might bring the branches of the surrounding trees well into the scope of his lens, and by photographing them in silhouette thus added the necessary shadows to an otherwise flat and uninteresting pic-



14—*An example of flat lighting. Photo by Carl Day.*



15—*An example of back lighting. Photo by Carl Day.*



16—*On the Beach. Photo by Robert Coburn.*

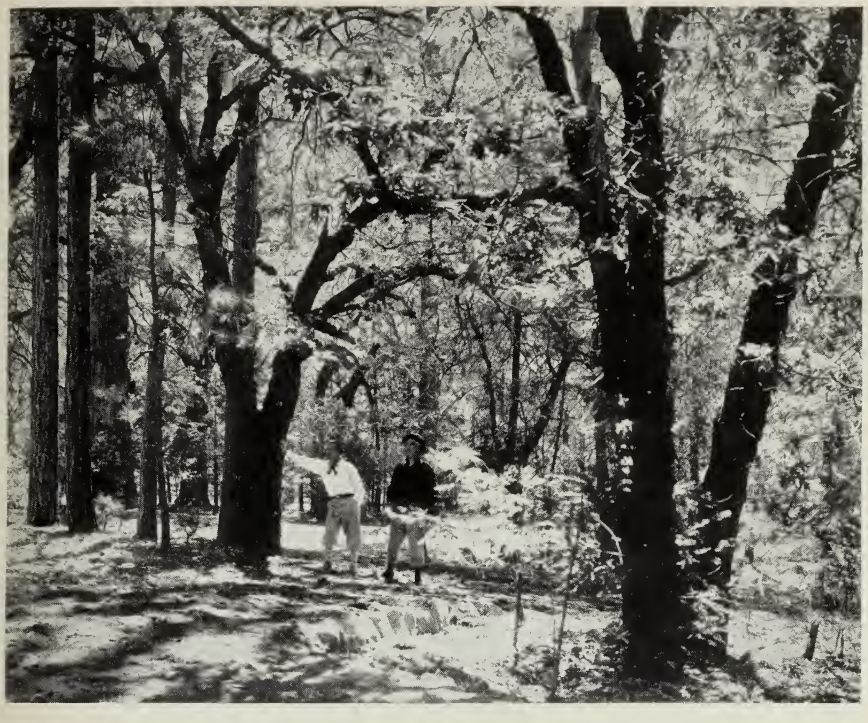
ture. You can easily imagine what the scene would have looked like without the border of lacy shadows.

In Scene 23, on page 24, a cross light has been used to decided advantage. You will notice how each sand pillar in this Oregon canyon stands out from its neighbor. This stereoscopic effect is only secured by proper use of lighting. Depth and perspective could not otherwise be obtained. If shot in flat lighting, the sides of one pillar would run right into the side of the next one, the side dimensions of each would be barely discernible against the general sand background, and all would appear to be about the same distance away.

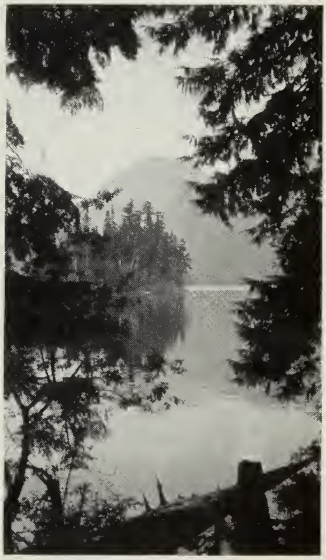
In making all pictures with back and cross lighting be absolutely sure to protect the lens from the direct rays of the sun.

In Scene 26 on page 24, you will notice the photographer used a cloud to shade the sun. He waited until he could get the maximum strength of light on the ocean and photographed just a second before the direct rays of the sun would reach the camera. As far as exposure is concerned he has reversed the usual procedure and has exposed for the high lights, allowing the shadows to go black, and thus form a frame for the study.

For Scene 27, page 24, the photographer shot directly into the sun. He was able to accomplish this for two reasons; first, he used a heavy four-time filter, and second, because, if you will study the sun carefully you will discover a thin cloud-veil covering it, and in that way the direct glare has been greatly lessened. From an exposure standpoint, this was made at a fiftieth of a second, stopped at 11, using a 3A Kodak. A motion picture was made of the same scene using panchromatic film, with a K3 filter, with stop set at 8, and photographed at a speed of a fiftieth of a second. Success in this type of picture can only be obtained by taking advantage of the right atmospheric conditions, and is not recommended for the average amateur to attempt on his first roll of stock. But it is something that will be very interesting to play with in subsequent experimentations, thus striving for effective pictures under all sorts and conditions of light.







17—*Spring—Photo by Robert Coburn*

18—*Sunbeams. Photo by Crandall.*

19—*The Lake in the Woods.*







20—*Companions. Photo by Jesse G. Sill.*

21—*The Trail in the Timber.*

22—*The River Road.*

In picture 25, page 24, we have an entirely different effect, but caused again by atmospheric conditions. A great fog bank is coming up out of the sea, and just before it has completely killed the glare of the sun, but while light is being reflected from the upper clouds, the photographer has made his picture. To show the great difference between the strength of the light and that in subject number 26, the exposure in this picture was at one twenty-fifth of a second with a 6.3 stop and no filter.

This taking advantage of atmospheric conditions as they occur is again illustrated in Scene 22, page 22. Because of the smoke from distant forest fires the photographer has used the sun directly overhead as at high noon, and by stepping back into the shadows has gained his desired pictorial effect.

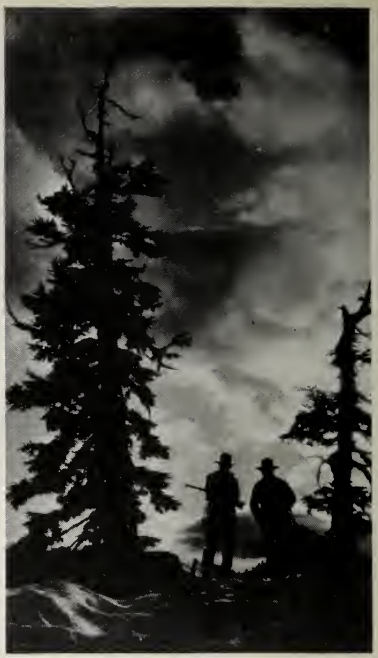
The use of a very strong sun spot is well exemplified in the picture entitled "The Trail in the Timber," (Scene 21, Page 22). The cameraman has his camera well shaded by the dense trees and has snapped his picture just as the entire pack train entered the sun spot. In this manner he has been able to avoid the dust and has used the dust cloud to the betterment of the subject by heightening the action of the scene. At the same time this picture illustrates the cool depth of the forest contrasted with the heat of the open trail.

In the open timber where the heavy glare of the sun is greatly subdued by the presence of much green foliage it is often advisable to make the picture by exposing only for the shadows, allowing the high lights to take care of themselves. In this manner beautiful effects can be obtained, such as shown in Scenes 17 and 18, on page 21.

Although startling effects may be obtained by all methods, when we come to night photography, direct lighting is preferable to back lighting. This may be explained by the fact that the source of the light is usually so small that the surrounding shadows are able to get in their helpful work no matter from which direction the light is coming. You will notice in Scene 28, page 25, a motion picture troupe is working about a campfire on a night location. Using all the electricity being gen-



23—*Canyon Shadows.*



24—*The Vanished Deer.*



25—*The Fog Bank.*

26—*Shining Seas.*

27—*Japanese Moonlight.*









28—(Upper) *Night Location.*
29—(Lower) *Glowing Embers.*

erated a photographic circle less than one hundred feet in circumference is etched out of the surrounding blackness of the night. But observing Scene 29 on the same page, you will see that this amount of light is sufficient for the closeups.

Naturally the amateur will not have the opportunity to use a power generator set in filming his night scenes, but here again the manufacturer has come to his aid in the development of special photographic flares for both still and movie-camera work. Those used in motion-picture work burn from a half minute to two minutes, giving a clear white photographic light. In using flares it is well to use two or three at a time, getting them as close to the subject as possible and close to the ground as well. Be absolutely sure that the smoke will blow away from the subject and not into the picture, even near to the edges of your camera range. It is advisable in all night work to shoot with the lens wide open. It is also very useful to take advantage of a reflector, or even a sheet, or a big piece of tin serving as a reflector to add to the light of the flares, as one should always remember that it takes a strong light to etch a picture on the film.

FILTERS

While on the subject of lighting it is perhaps advisable to say a few words about the use of filters, as many beautiful effects can be obtained by the employment of these color screens, especially if the operator is using panchromatic film. Possibly the greatest pleasure to be had in photography is by experimentation, and filters will give the opportunity for working out all sorts of variations and interesting accomplishments.

The photographic day can be greatly lengthened by the use of filters as they allow the cameraman to shoot directly into his source of light and still make a picture. In Scene 16, page 19, the shipwrecked sailors are silhouetted against the shining sands of the beach just at sundown. The direct light would have been so weak that it would have given a very poor result if a picture had been attempted with the sun at the camera-





30—(Upper) *Sundown.*
31—(Lower) *Twilight.*

man's back; but by shooting directly into the sun the pictorial value is obtained even to the extent of picking up the atmosphere of the rollers coming in over an oily sea.

The sunset effect in Scene 30, page 27, was secured by the use of a K3 filter which allowed the red clouds of the sunset to be caught on panchromatic film. As soon as the sun had dropped behind the horizon the cameraman removed the filter and photographed practically the same scene (Scene 31), in that manner catching the grayish clouds and obtaining a night effect. But here the operator made a slight error. Not realizing he had as much light as he did, he failed to stop down and we find that his resulting picture is several points lighter than the sunset picture. But that all comes under the head of experimentation.

Even with the use of the filter it is often advisable to hide the source of the light—as for example in Scene 24, page 24,—behind some object in the picture. In this scene you notice the sun is hidden by a small tree on the right-hand side of the picture. Many weird results may be secured through the use of filters and after one becomes an adept at judging the proper filter to use he will be able to make pictures that contain an atmosphere of the most unusual and spectacular in nature. That's where lots of the fun and joy of photography comes in, and it's the pleasure of filming we're after, combined with the added sense of gratification in doing something better and better all the time.

Chapter IV

IS IT A PICTURE?

"The best cinema composition is that arrangement of elements in a scene which enables us to see the most with the least difficulty and the deepest feeling."

—Dr. Victor O. Freeburg.

No maker of pictures, whether stills or movies, can find greater pleasure in his picture-taking and secure greater quality in his general results than by a study of a few simple rules of pictorial composition. The chief underlying element in composition is that there must be a focal point or center of interest in the picture which will catch and hold the eye the instant one glances at the subject. We have all experienced the unsatisfactory feeling of glancing at a picture and finding nothing to hold the attention. On the other hand there are pictures with an important focal point but because of poor composition around the border of the scene the eye is allowed to stray, and again you are unsatisfied with the result and turn to the next subject.

Probably one of the best-known rules in landscape photography is never to center the horizon in the frame, for the result will be the unbalanced halves of two possible pictures. The foreground should lead the eye gently to the background and, once there, allow it to rest.

Scene 32, page 30, showing the bridge across the Bow River at Banff, Alberta, is a good example of a straight line used to lead the eye back to the focal point which in this case is at the end of the bridge and toward the base of the mountain. Notice that no matter what part of the picture to which you



32—*The Bow River Bridge.*



33—*A Lane in Switzerland.*



34—*Tropical Night.*



35—*The Water Hazard. Christie Film Photo.*

allow your eye to stray, it is called back time after time to the focal point. A principle to remember is that this focal point should always be off center, and in the majority of cases, below and to the left of the center.

This same principle is illustrated in Scene 33, page 30, where vertical lines instead of horizontal lines lead the eye once more to the off-center focal point, in this case a Swiss Inn at the bend of a long straight road lined with poplar trees. Notice once more how difficult it is for the eye to stray to the edge of the picture in any direction. The reason the lines made by the trees lead the eye to the central point of interest, instead of away out of the picture, is that they form a converging point with the road. This form of composition, with proper use of lines, will always give a certain depth to the picture.

The picture of the row of bathing girls at the edge of the pool is a good example of many points in composition, because of its straight lines, and its repetition of these in the mass (Scene 35, page 30.) It is an arresting picture because of these elements but it is not a completely satisfying picture, probably for the reason that there is not a central focal point at which the eye can rest. The lines lead the eye from left to right, down along the row of girls, in the direction toward which the upraised feet are pointing, but then the eye runs off and around again in a circle to the starting point. An attempt has been made to form a focal point about the girl standing at the back of the row by placing her in a dark archway, but the trouble is that she is too near the center of the picture and her face is too close to the top border. This is not a strong enough focal point to offset the fact that none of the lines lead toward her. It is a good photograph of each individual girl but misses being good composition. If the girl had been standing at the end of the line on the right with both feet on the ground, the directional lines would have led right to her and the eye would have been prevented from straying outside of the picture, the result being a pleasing arrangement.

Scene 36, page 32, is not a good picture. The eye follows



36—*The Old Mill.*



38—*The Mill Pond.*



37—*Vermont April.*

upstream to the base of the mill, turns a bit to the right because of the white water and then is lost in the wilderness of lines caused by the brush-clad hills. One is conscious of the effort to drag the eye back from the brush to the old mill, only to find that the process is repeated over and over.

The keynote of artistic composition should always be simplicity, and this same scene errs in having too much confusion in the picture because of the great jumble of lines going in all directions.

This is overcome somewhat in Scene 37, page 32, but Scene 38 is a really satisfying one because here we have the lines formed by the falling water and by the line on the top of the dam which meets the corner of the old mill and centers the eye on the mass of the two pine trees as reflected in the mill-pond. No matter from which direction the eye enters the picture, it will find it comes to rest eventually on the still waters of the pond. The human eye does this so quickly we are not conscious of it. If you will glance at a dozen pictures you will find that your eyes are doing this and finding the focal point instantly and without apparent effort.

Scent 39 on page 34 is an example of the deliberate use of figures to establish a focal point. Without the aid of lines these small figures are able to arrest and control the eye to such an extent that the interest is maintained in the picture. Balance in the picture is attained by the great mass of mountains in the upper right-hand corner.

An easy method of keeping the eye within the borders of the picture, even where there are no available straight lines, is the use of a figure in the foreground looking toward the main portion of the picture. Unconsciously the viewer will place himself in the position of the foreground figure and will literally use the other's eyes in viewing the landscape. This is well exemplified in Scenes 42 and 43, page 36. This same principle of composition is brought home forcibly in the well-known picture of the little white dog which for many years has gazed into the phonograph in thousands of advertising illustrations and post-



40—*Spirit Lake, at the foot of St. Helen's, Washington.*



39—*A Swiss Ice Field.*



41—*Oregon's Coast.*

ers of the Victor talking machine. The eye is attracted to the dog, but then immediately follows along with his gaze into the center of interest which is the horn.

In the picture of Spirit Lake at the foot of Mount St. Helen's in the State of Washington we find a different treatment of composition. (Scene 40, page 34.) Here the mass of stumps in the foreground and the tree trunk on the left-hand side hold the eye from slipping away out of the border of the picture. The mass of timber on the wooded point on the right-hand side leads the eye to the snow-capped mountain in the background, the result being a well-composed picture by the use of heavy masses. This mass control is also illustrated in the seascape, Scene 41, page 34. You will notice that it is almost impossible for the eye to seek a way out of the picture. Nature has always been known to use curves generously to beautify the landscape.

The picture of the Arizona oasis, Scene 44, page 36, shows the use of a large amount of sky as atmosphere. The eye is allowed to reach to the distant horizon on the left-hand side of the picture but is continually compelled to return to the main portion of the picture, which is made up of the horses and the sign in the foreground, and the effect gained is that of uninterrupted distance and of the lonesomeness of the town.

How much better it would be for the camera shooter, when out on his vacation with the family, to have pictures of his wife or his youngster looking at a beautiful scene, as illustrated for instance in the Pictures 42 and 43, than to confine himself to the commonplace views of his groups of people just staring into the lens. How much more pleasure when you come back from the vacation to have this combination of figure and landscape than either one separately.

It isn't necessary that the person be pointing at the landscape; in fact that's one thing to be carefully avoided, but the simple attitude of gazing at the landscape is quite sufficient.

The same general principles of composition that we have been talking about with reference to scenery, apply in the mak-







42—*Mount Baker, Washington.*

43—*The West.*

44—*The Oasis.*

ing of pictures of groups of people. If there is a focal point of interest, attained perhaps by most of the group looking toward some object or central figure in the group, rather than into the camera, generally a more interesting picture will be the result.

Keep the picture simple.

Do not clutter it with too many details.

Have a point of interest.

Use shadows to confine the eye within the picture.

A shadow or a large heavy mass in the lower left-hand corner will generally control the balance of the picture.

A pleasing picture is the result of good composition.

Whatever amount of time and study and experimentation the movie-maker devotes to mastering the art of composition will amply repay the photographer in the pleasure of having made a better picture.

Chapter V

THE SET-UP

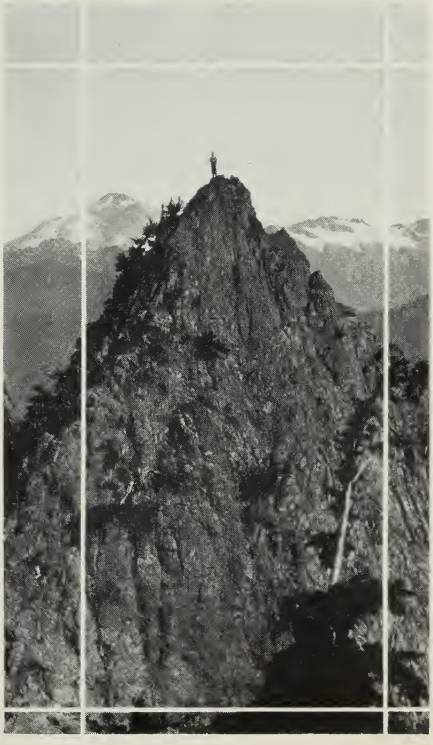
NATURALLY the proper placing of the camera has a great deal to do with pictorial composition, but camera position goes even farther than that. For instance, if you will glance through the prints of your old still picture days you will find that a great many of them can be improved by trimming. An example of this is Scene 48, page 39. Notice that by cutting along the lines, as marked, the picture shows more height than it does in its original size. In other words the cameraman did not make the most of his set-up; he has tipped too high and has added too much blank sky to the scene. Because of the canyon in the foreground it was impossible for him to get closer to the subject and thus get the proper width for his picture, but nevertheless he probably could have gotten a much better picture if he had used a little more time in judging his camera position.

In Scene 47 on the same page you will notice that trimming gives much better pictorial composition. In this particular case again the cameraman could not get nearer his subject as he was forced to stand upon a bridge, but he could have pointed the lens slightly more to the right for better results. The one thing that he should have done in this still picture applies to motion picture photography as well. He should have changed his lens to one of a longer focus and the result would have been a much better balance. And this is what we mean when we speak of camera placement, that it is not only a study of where to place the camera, but also a study of what lens to use.

We call your attention to Scene 45, on page 40. The com-



47—*A Sierra Camp.*



48—*Too Much Sky.*





45—(Upper) *The Yosemite Valley Floor.*
46—(Lower) *Too Much Foreground.*

position is very good, but the camera could have been placed several feet nearer the main object, which is the man.

You will notice that the same amount of space has been trimmed on all four sides, the result being a better picture Here he would not have needed to even change the lens, simply moved a few feet closer into the picture.

Our best example is Scene 46, page 40. Here the photographer has allowed his two figures to get too far away from the camera, and his camera has been pointed much too far to the left. The picture is improved greatly by the line *A* and should remain that size but for one thing. Line *A* brings the figures too close to the center of the picture, therefore we cut again at line *B*. Likewise you will notice that there was too much uninteresting foreground and too much blank sky. This picture shows not only poor composition but poor camera placement, and also a choice of the wrong lens.

Several of the amateur cameras carry more than one lens and the amateur should learn that these extra lenses are there for a purpose. The two-inch lens makes a picture nearest to what the eye sees but many times the camera can not be placed close enough to the subject to give the results and here is where the three-inch lens comes into use. At many places of interest it is impossible to get the camera far enough away from the subject to secure good composition and in a case of this kind you must resort to a lens of shorter focal length. An example of this type of location is Yosemite Valley in California. The gigantic cliffs are so enormous that one is hemmed in by a great wall and without the shorter focal length lens it is impossible to get far enough back to bring out the beauties of some of the finest subjects found there. It is then that you use the 1¼ inch lens or if you have it available, the 25 millimeter.

Many of the points which were covered in the chapter on pictorial composition have a direct bearing on this subject of camera placement, but once you have learned the rudiments of pictorial composition, the proper camera position and the correct choice of lens will become second nature.

Chapter VI

PICTURES THAT MOVE

ONE OF THE FIRST problems which confronts the amateur at the beginning of his photographic experience is that of getting natural action into his pictures.

The common experience of people who first use a moving picture camera is to start taking pictures by the same methods which they used when they were shooting with a still camera. To overcome this natural tendency the amateur usually begins by *moving* his movie camera. When he has looked at his first roll of film and sees that a good bit of it looks mighty still to him, he usually starts out with his next roll and finds himself panning and tilting all over the landscape in an effort to get action into the pictures, resulting in nothing standing still.

Then as experience grows he discovers that this is the incorrect way of making action. When a scene is worth taking he will keep his camera on the scene and not pan or tilt unless to connect the scene with something else of as great or greater importance. Even then it is usually preferable to make two separate scenes, and avoid going from one scene, through dead and uninteresting material, to get to the next scene.

The amateur will find better results and steadier pictures and an all around more professional finish if he will immediately forget the use of the camera in his hand, and put it on a tripod as often as possible. Move the camera less and keep the movement in the scenes themselves.

After the amateur has been disappointed in his efforts to get action by panning, he finds that considerable thought will

have to be given to getting natural action into his subjects, be they groups of people, landscapes or average scenes of travel.

Action can be found everywhere, however, if one will look for it and study how to use it. Even a still picture can be chock full of the spirit of action and movement.

Personal experience has shown that some of my best pictures with the movie camera were scenes that I also wanted to make a still photograph of, and a good observation is that if it isn't good enough for a still picture it isn't good enough for a movie.

You can find action anywhere; in the ocean, in lakes, rivers, waterfalls, the wind in trees, movements of clouds, in the recording of events, the registering of sports, children at play (which is one of the best subjects), animals, and scenes from moving objects.

Photographing from moving objects immediately brings to mind one of the most frequent experiences of the average vacationist in attempting to record scenes from his train as it passes a beautiful or an interesting spot. Unfortunately it is rarely possible to get on the front of the train which is the best place from which to photograph, and scenes shot from the side or rear are seldom satisfactory. The camera should be headed toward the picture, the scene coming toward you instead of receding into the distance. At best it is usually very difficult to get good scenes from moving trains unless using the widest angle of lens to do away with as much of the vibration as possible.

The same idea of having the scene coming toward you applies to taking pictures from moving automobiles, but not to boats, because from the stern of a boat you have the wake of the ship at the bottom of the picture, forming attractive patterns, and there will probably be clouds, without which you would scarcely have a reason for making a pictorial background anyway.

Making films from boats calls to mind one of the exceptional times when taking pictures from the hand is preferable to the



49—*High and Easy.*
Photo by Carl Day.



50—*The Body Blow.*
Photo by Douglas
Fairbanks Productions.

use of a tripod, because with camera in hand, the body can take up some of the vibration and movement of the boat itself.

In photographing a bird in flight, or an aeroplane, a train, or a car going by, or a horserace, you will get your best pictures by the camera following the object, keeping the moving objects always in the picture, this being one of the times when it is right to pan or tilt. When the Akeley tripod came into use, for instance, in following a group of horses around a track, it showed strikingly how much more effective were the scenes than those in which the galloping horses merely entered the picture at the left and passed through the field of vision.

We have already noted that in making moving objects, it is well to have them coming toward the camera, and while doing so it is usually preferable to have them approaching at an angle instead of directly toward the lens. And you will find that if they approach from the left, rather than from the right, the result will be generally more satisfactory. This method will avoid blurring and retain better composition in the picture. This is well illustrated in Scene 49, page 44, a striking example of this method of photographing moving things. This picture has about everything to be desired; the best angle, the catching of a graceful horse at the height of the jump, a fine cross light, the focal point of interest centered well, and stirring action in every sense of the word.

Everyone, of course, realizes that water is one of the elements which easily lends action to landscape, but they sometimes fail to realize that this same action value can be secured from the sky, as illustrated in Scene 53, page 47, where a blizzard is coming full tilt from behind the clouds. The photographer in this case has caught the moving feeling of the scene from the wind-blown trees in the foreground which give action to the clouds in the background and carry the full force of the approaching violence of the storm. We should always keep before us the fact that composition is one of the primary principles of photography, and it is through composition that we can emphasize action in both still pictures and movies.

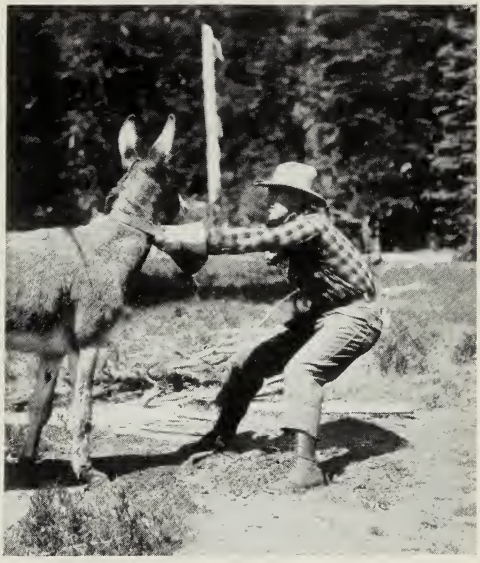
The action photograph of Douglas Fairbanks and Charlie Chaplin, Scene 50, page 44, demonstrates many things quite forcibly. First: there is a good cross light; then there is an easily discernible focal point of interest right where Charlie's glove is in contact with Doug's tummy. It is impossible for the eye to stray away and out of this picture. Another point is that all of the group are looking at the point of action, heightening the interest in it. The expressions of the principals intensify the spirit of action, and their arms and postures heighten it as well. Charlie's left arm, swung back, anticipates still more action, for you feel that having landed his body-raising blow with his right, he is just about to let Doug have it with the other one.

You will find some of your best action pictures in the ordinary run of vacation time doings and outdoor sports. Great pictures will result from catching the action of a fisherman landing his catch, the spirit of the hunting dog, in momentarily arrested action when he points the game, lending the necessary appeal to this kind of a scene; the natural movements of spirited horses and riders in a polo game, or even the quieter forms of sport such as Uncle Bill and the firemen pitching horseshoes in the side yard. And, by the way, when you are taking that picture of Dad landing the mountain trout, or even just photographing the mountain stream, shoot upstream and not down, thus showing the power of the water by having the stream approach the camera.

In recording sporting events your action will all be supplied for you. All you have to do is to pick your angles and exposures. In nature you can take advantage of movements of clouds and the changing patterns of sunsets. About the only difficulty in supplying action will be encountered in shooting the family groups, people whose natural inclination is to just pose for the camera and a little self consciously hesitate to do anything. They will usually ask you, "What do you want me to do?" when they realize it is a movie. One answer to the question is, "What you would be doing if the camera was not there."



51—*Up and Over.*
Photo by Pat Dowling.



52—*Arrested Action.*

53—*The Approaching Storm.*



In other words try to get them to disregard the camera, tell them to do anything they please except "look at the birdie."

If the action is continuous or progressive, such as taking successive scenes of the same person covering more ground than can be taken from your first camera location, one of the chief points to remember is to have your character enter each scene from the same direction. Don't make the mistake which sometimes happens, even in professional studio photography, of letting a character apparently meet himself, but if in the first scene he enters from the left, let him do the same in the next. And if your character is moving out of your scene, let him go completely out. Otherwise, unless you can handle it with a fade, you'll have an awkward jump.

Trying to get your characters to do something rather than pose and look at the camera will be worth your thinking up the action before setting out to make the picture. Instead of having the gang at the picnic, for instance, lined up in a row to be shot, try to catch them at their meal or at whatever they are doing, more or less in the same manner as the so-called "candid cameras" which are now being used very extensively to take photographs at court-room trials, at banquets and other places where an attempt is made to catch natural expressions, with the subject being unconscious of the presence of the camera. It isn't exactly necessary to take all of your group movies by sneaking up unawares on your characters. That will not always be possible, or even desirable; but you will be able to coach them into going through with the game or the stunt or whatever you want to catch in a natural manner.

It will help if you have already made up your mind where you are going to stand, and if you are all ready to shoot. Then you will be in a position to tell your folks to go ahead with what they are doing while you are getting set—and when they do, grab your scene.

NOTE: *If you "must" pan, please do so from left to right. It is the manner in which we have been taught to read, and for that reason, is more natural and pleasing to the eye.*

Chapter VII

HOME STUFF

THE MOST GENERAL use for the amateur camera has been, and will continue to be, the securing of pictures of the family itself, especially the children, and the pets and the intimate records which will be a source of entertainment today, to be preserved as priceless treasures in later years. These subjects close to home are akin to those which most people have taken in kodak pictures and are the kind of subjects which are likely to be filmed casually, and without due regard to a few of the elements which can make them excellent pictures of lasting value.

The same hints which you have observed regarding composition, exposure and lighting will be applicable to this type of picture-making, but what will be of additional value to your pictures of family life will be the securing of naturalness and interesting and typical action.

Every picture should tell a story. That is a terse bit of advice which applies to all picture-making, but which is especially pertinent to home movies and intimate subjects of people, and one which is quite easily overlooked in the tendency to shoot haphazardly whenever in the mood for using the camera. By telling a story it doesn't necessarily mean making a connected narrative of a whole reel or more, but it means that in each subject photographed, even if it is only a twenty-foot individual scene, that picture should tell a story. For example, the photograph of the little boy fishing, seen on page 50, though just a single still shot, has a real story to it. You can make it up as you study the picture, but you will quickly











70—(Upper) *Patience. Photo by Oliver Sigurdson.*
71—*Happy Days.* 74—*The Re-tired Business Man.*
73—*Goats of the Alps.* 72—*The Proud Parent.*

see that it "suggests" a reminiscent mood, and you are thinking with the boy a whole train of memories. So it is with the picture of George Fawcett and his dog, Scene 67, page 55.

Getting a simple story of chronological order into a series of home pictures will be quite easy to attain in many types of amateur photography. For instance suppose the pictures are being made by a boy or girl old enough to go away on a week's vacation on a farm or at a summer camp. A most interesting reel can be made up of "a day at the camp," including in proper sequence a scene of each regular event of the day's sport. It will not always be possible to film them all in the same day, but the picture-maker can make up his own outline of what will be in the finished picture, and the scenes can be caught at the right opportunity, starting, if it is in a typical boy's summer camp, with the bugler calling them up in the morning, following with a close shot of a sleepy head emerging from the covers, and so on through the trips and games of the day and ending with an effect shot of the campfire at night.

At the start when making pictures around the home, especially with children and with animals, the amateur will doubtless find his greatest satisfaction coming from the use of a fixed focus type of camera which will allow him to shoot quicker and follow his rapidly-moving subjects with greater ease. You will not be able to do much "posing" of children; in fact the posed pictures will not be nearly as good as the pictures which are caught on the fly, so to speak. If a child wasn't out of one thing and into a couple of others in a few shakes of a lamb's tail, it wouldn't be a natural child. And it is the naturalness of the youngster at play which you will want to catch in your pictures if they are to give you the greatest pleasure at the time as well as in later years. Making pictures like this is comparable to the Brownie snapshotting which many of us did when we first had a camera. The enjoyment of the camera-user will be greater in ratio to the simplicity with which he can get good pictures, and this is especially true in making movies of the family, the children and the animals.







54—"*Stop.*"
55—"*Look.*"
56—"*Listen.*"



61—*Step Children.*



62—*Wet Smacks.*



63—*The Gateman.*



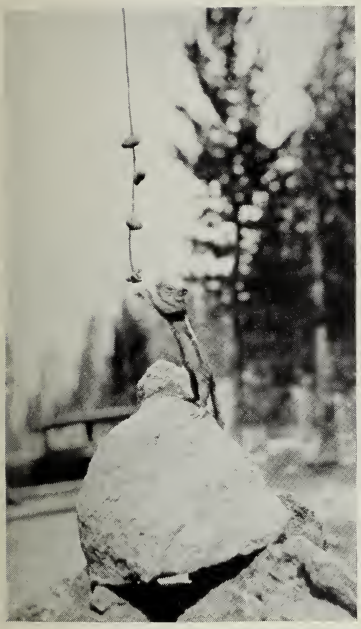
64—"*Play Ball.*"

Because one of the most important uses of family pictures will be to preserve them as an interesting record to look at a number of years later, it will be just as well to watch out for the hat styles. In other words, keep the girls and the women from wearing their hats any more than necessary, because nothing gives away five-year antiquity like a hat. Of course it's lots of sport to look over an old kodak album every once in a while and get a few laughs out of the styles which we wore ten years ago. But a little of that comedy goes a long way and, as a general rule, a few "old-hat pictures" will suffice in your movie library. Your wife and your daughters will thank you later for your advice today to leave their hats off.

It is interesting to note here that the forerunner of the modern movies were pictures of a horse in action, just the kind of pictures which the average amateur movie-maker will be likely to want to film. At Stanford University in 1871, when Governor Leland Stanford owned a large stock farm which had on it many blooded horses and a private race track, a most interesting experiment was conducted by Edward Muybridge. Desiring to check exactly the action, at different intervals, of a horse's feet when running, a row of 29 individual still cameras were mounted in a line beside the track and snapped in rapid succession as the horse passed the row of cameras and broke the threads attached to the shutter of each camera. The pictures were then developed and printed individually and run off in rapid succession, just as now the successive individual pictures or "frames" of a movie strip of film are run. This experiment is generally credited with being the first use of anything akin to our moving pictures of today.

And while you are taking the family groups you might just as well avoid one of the frequent oversights which has spoiled many a good kodak picture, and that is the foreshortening effect of a lens which makes a foot or hand sticking out in front of the subject loom up in the finished picture like a grotesque deformity. An illustration of this is seen in an otherwise attractive still, Scene 65, page 55, of a typical home











65—*Admiration. Photo by Pat Dowling.*
66—*Peanuts.* 67—*Looking Backward.*
68—"*Patsy.*" 69—"*Monsieur Dick.*"



57—*The Guardian.*
Photo by Carl Day.



58—*Attention.*



59—*All Winners.*



60—*Fowl Business. Educational-Christie Productions.*

scene—taken by one of the authors, by the way—who overlooked the fact that when taking close shots feet and knees should not be allowed to stick out toward the camera.

Making pictures of little children, and the making of pictures by younger boys and girls themselves, will take on especial enjoyment when the pictures are a record of games or sports or definite action rather than just posed groups. One of the earliest and best sports which children of a certain age have ever found is "dressing up," whether it is in the clothing of their elders or as Indians or cowboys. It is times like these which ought to be pictured rather than all pictures of the young members of the family in their school or "Sunday" clothes. Besides, the mere excuse of dressing up makes it handy to invent action to photograph. And the dressing up will not stop with the youngsters themselves. No little girl ever had a cat, or no little boy a dog, that wasn't subject at some time or other to submitting to a togging out in at least a funny hat and jacket.

If it is an elder taking children rather than the children taking pictures themselves, the elders, even if they are the parents of the subjects, will still have to remember to take plenty of time to establish confidence and naturalness in the minds of the children, in order to be able to get the best pictures of them. I have seen a parent get terribly exasperated when its child didn't fall into the spirit of being photographed the minute Dad had the camera out of its case and ready to shoot.

The first thing babies and real small children will want to do is to play with the camera itself, so you might as well give them the carrying case to chew, or throw down on the lawn a few times and get that subject of interest exhausted before starting to photograph. Then when the baby or the small child has found its center of interest somewhere else that's the time to begin taking the pictures.

If the pictures are being made by a grown-up, recording the activities of his children, or the children of his neighbors

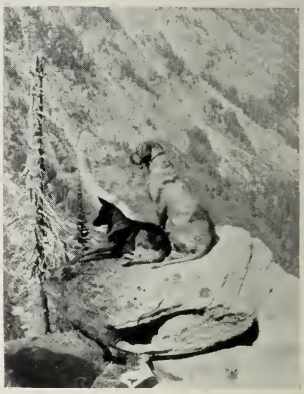
75—*Hound of the Hills.*



79—*The Hunt.*



76—*Watch Dogs.*





77—"*Kitty Meow.*"



80—*The Siesta.*



78—"*Fadeout.*"



81—*Road Work.*

or relatives, he will find his films to be of the most general interest to all viewers, as well as the immediate family, if he has injected into them elements of human interest and action, such as the typical amusing antics and "picklements" which the children will get into. A picture of the child trying to get out of the gate, or through a hole in the fence, or getting into the jam closet, or in the case of a smaller one, going through those strange investigations of a toy, his attention completely centered upon the object of contemplation and totally oblivious to outside happenings, will be twice as interesting a picture to the casual observer as one which is just a pretty picture of the baby being held in someone's arms.

These "unconscious" pictures will take longer to get but will be the ones which will be the most highly cherished in later years, and will be most appreciated by the subjects themselves when they grow up.

Taking pictures of the pets of the household will involve the same principles which apply to making movies of the children. What will make the pictures most interesting is to take the time to get them in action, doing something of interest. If it is the family dog, he might be in the act of digging something up or having his bath with his usual bored expression. If it is a litter of new pups, your subject will be easy for comedy if you will just play around long enough to catch them in the unconsciously funny gyrations which they go through.

There will be many opportunities to get pictures of the wilder animals, especially if you are in the national parks in vacation time, and it will be necessary here to get the interest of the animal in something, like, for example, the bear and the camera, Scene 87, page 60, or the chipmunk after the nut on a string, Scene 66, page 55.

"Down by the Old Mill Stream" and such locations connected with the days of romance have always been the most likely subjects for kodaking and now movie-making. Such pictures will always involve some slight gamble, because if the young lady who is the subject of the photographic studies hap-

82—*The Assistant.*





83—"*Steady, Please.*"

85—*The Amateur Cameraman.*





84—*Big Game.*



87—*A Movie Investigation.*



86—*Suspicious.*

pens later not to become the Mrs., the one who does will probably not appreciate the human interest of the scenes when projected twenty years from now. However, it's worth taking the chance because it will be enough pleasure to take the young lady by the hand and start wandering in search for pretty spots to photograph.

Family reunions will be a great time to inject some atmosphere and action into the pictures by making up the scenes—after you have made one long shot to establish the entire group—in small bits of typical action of two or more of the group in each shot—Grandpa and Uncle Bill pitching horse-shoes, Mother and Aunt Annie cutting the pie and passing the food, one of the young mothers chasing the baby, a young boy of the group with his face buried in a watermelon, and all together a picture of the event as it is, with some kind of individual action for everybody.

Take a lot of close-ups.

Chapter VIII

FILMS FOR PROFIT

THE AVERAGE MAN in business, whether he is in the advertising department, a sales official, factory superintendent or a laboratory or research worker, will find so many things to picturize in connection with his work, that in addition to, or in conjunction with the professional-made films which his company is likely to use, he will find great enjoyment as well as utility and experience in the movies he will make himself.

The advantage which the amateur movie-maker has over the professional in making pictures in many lines of business and manufacture is that he is right on the ground and knows intimately the business with which he is connected. By being on the spot every day he can see things and will know what points to bring out, and he will be there at the time when it is possible to make a picture which might otherwise necessitate keeping a camera staff on hand over a long period of time.

A good example of a business man making a typical industrial film is the experience of an official of the Symington Company, in which he secured some very interesting views with a sixteen millimeter camera of the detailed workings of a special type of railway car coupling, and the different phases of its mechanical action as the cars of a train were in actual motion on curved and straight tracks. This demonstration picture, in a few minutes running time, made it possible for a person to get a clearer grasp of just what this coupling does than it would have been possible to obtain by a personal demonstration. And the latter would have taken much time and travel, besides.

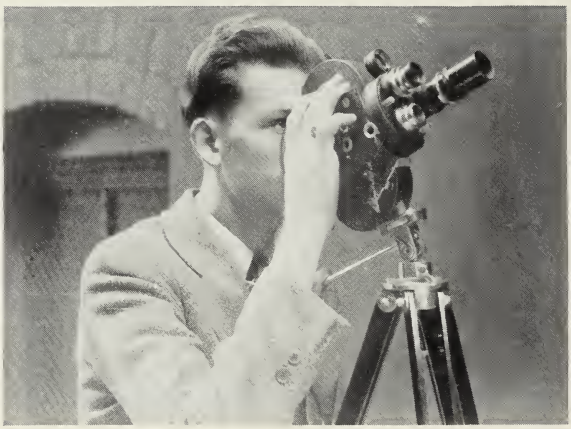
Perhaps a still better example of an industrial picture made by an ardent small-camera user, is a picture recently completed by Mr. Lee Holtz, general superintendent of the Southern California Gas Company. Becoming interested in camera work some time ago, and of course thoroughly familiar with all departments of the production of gas and its supply to the public, Mr. Holtz started to make pictures of scenes around the company's business, partly for his own pleasure and partly for a definite purpose. In the completely edited picture of 2500 feet of sixteen-millimeter film, the picture goes through the entire subject of gas from its origin in the oil fields, through the drilling of the crude oil, the manufacture of gas and the supplying of it to the kitchen burner in the home and to the many industrial uses in great factories. The picture has been widely shown, not only to the large personnel of the gas company, but also to clubs, business men's organizations and other special groups of people in the community. There are many industries in which a general picture of the whole ramified business is of intense interest to the individuals in specific departments who, otherwise would scarcely get a complete survey even of the scope of their own company's business.

Many business and professional men begin filming scenes around their own everyday working activities quite by accident. Having procured a movie camera for home and vacation use, they often discover that they get a bigger kick out of recording the scenes which occur in connection with their work, than they do by taking pictures of their leisure-hour activities. It has frequently been the case that business men who have gone in for amateur movie photography have thus discovered the value of pictures in business and have eventually made pictures a regular part of their companies' promotional activities, often going from the amateur movies into regular professionally produced and more elaborate commercial pictures and talkies.

There is hardly a business which hasn't the opportunity for the movie-maker to photograph; the automobile and tire man who can show road trips; the steamship man with odd places

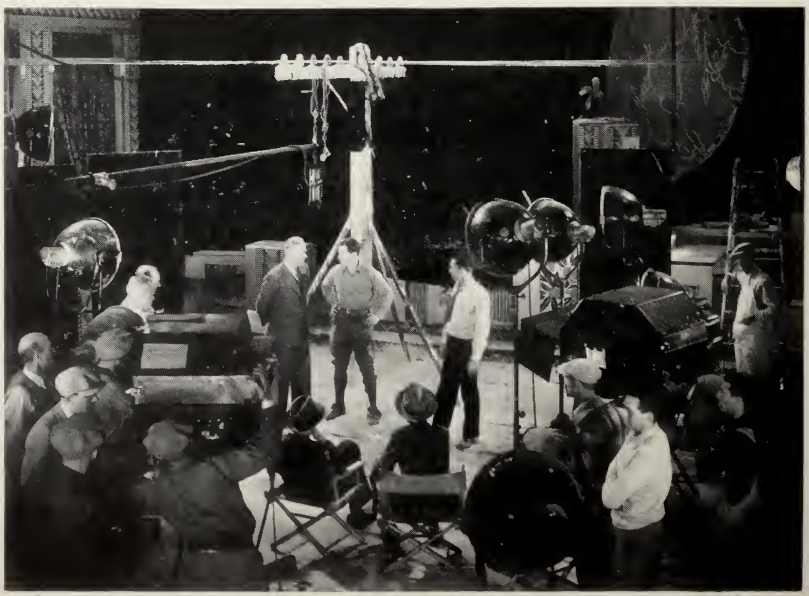


88—*A Factory Location. Courtesy the Perfect Circle Co.*



89—*Ready for Business. Photo by Victor Animatograph Corp.*

90—*A Business Picture Studio Set. Photo by Metropolitan Sound Studios.*



and interesting scenes; the house mover, the sign dealer with a display of all types of the product; the food merchandiser who can show how his products are grown and packed under modern methods; and the financial house which shows the background of the securities which it is selling.

One of the chief advantages of the amateur camera in business is the fact that any time you can teach something or create interest in a subject or a commodity, you have done half the job of selling it. And these uses are particularly adaptable in enterprises and professions which have outdoor work and subjects connected with them.

There have been many examples of engineers, architects and contractors who have found it valuable to take a picture record of the jobs which they have done for use in future consultation about other prospective jobs.

The real estate dealer has found it especially useful to show scenes of widely scattered properties and run them off at a central and easily accessible location such as a downtown main office, when it would have been impossible to get the prospective clients to take the necessary time to visit all of the places which can be seen in a movie in twenty minutes.

The farmer, the orchardist, the dairyman has found that he can improve his crops and his stock through use of pictures. A successful cattleman in the West, whose stock comes and goes in two years time, has made pictures which he has later studied with special reference to the condition of different groups of his animals, and by watching their growth and condition has been able to analyze to a scientific nicety problems of feeding, disease and other elements never dreamed of in old-time haphazard stock raising. Likewise a farm operator who is doing business on a large scale has found it possible to take pictures of great fields of grain which were attacked by a type of rust, and together with samples, he sent the pictures to a state university laboratory for study and suggestions, which proved to be greatly to his benefit.

A nursery man in the middle West filmed scenes of his

stock at the height of the season when in full foliage and these pictures were used in mid-winter to visualize to buyers their landscaping requirements for later months.

Perhaps one of the greatest opportunities for the movie-maker in industry is in connection with the manufacture or sale of heavy machinery and equipment. It is naturally impossible to send around samples of cranes, ditch-digging machinery, road-making equipment, conveyors and mechanical engines of all kinds; it is even impractical for local dealers to carry full lines of many types of machinery in stock. But it is quite easy to take pictures of such equipment in operation and send these films all over the world.

An interesting use of the camera in business is the making of progressive pictures showing great construction projects as they develop over a period of time. Such a picture is now being made of a huge power dam project which will be years in the building, the pictures being useful to show to the public which the particular utility company serves, also as a demonstration by the construction company itself of the magnitude of the project and the methods of work, something which would be impossible to do thoroughly and quickly without months of study on the job itself.

The camera in business has been found to be of special importance in world-wide trade, either to carry abroad the pictures and explanations of local manufacture and products, or to gather abroad scenes of cultivation of products or the making of them to show to consumers here.

There is a good opportunity for those engaged in church, benevolent and missionary work to utilize a camera in picturing the activities of the organization. How useful it might be in raising funds for foreign hospital and missionary activities to picture in simple form the work which is going on in those places and run the film in the home churches. A worker in the foreign field with a fifty-dollar camera can take pictures which might result in hundreds of thousands of dollars in beneficences

for the work, were it thoroughly pictured in the eyes of the people at home.

Undoubtedly the most successful industrial films, especially where they are used for sales or promotional work, are the straightforward explanatory and demonstration forms of pictures, which depend for their effectiveness upon the interest in the subject, the quality of the pictures and the direct method in which they cover the ground to be pictured. As a general rule, business films will fail if there is injected into them roundabout effects, symbolism, trick effects, or "artiness" of any kind. The man or woman who might be interested in a product will appreciate the picture coming directly to its point, showing what the company has to offer in a thorough, direct manner.

When sound is considered, an entirely different set of production requirements and facilities comes into being and the best policy has been proven to be to turn the picture-making over to one of the recognized studio producing companies which are going in for this sort of picture, and which is equipped to confer with the company desiring the picture, estimate all factors of cost in it and carry the work through from beginning to end.

For the amateur who would use his camera in his business or profession here are a few points to look out for:

1. Plan the complete picture fully in advance.
2. Confer with all departments which are likely to be affected in the filming.
3. Rehearse all workers in their parts, so that they will perform in their usual everyday routine style.
4. Take many close-ups.
5. Use long shots only to establish the general location.
6. Keep the spirit of the business in the action and in the titles.
7. Use a steady fixed base for the camera.
8. Plan the scenes so that each will have some direct bearing on the reason for making the picture.

Chapter IX

LET'S TRY SOMETHING DIFFERENT

AFTER THE PICTURE-MAKER has taken a few rolls of film of the family and perhaps the events of several outings he will more than likely begin to feel the urge to play around with special effects and to try some tricks to see just what he can get into the little box. When he has reached this state of mind it is time for him to start experimenting because the range is very wide and a great deal of pleasure is to be found in trying new things, just for the sake of seeing how they come out.

Good photography doesn't always depend upon perfectly clear atmospheric conditions because there are many conditions under which successful pictures can be made; for instance, a bank of fog lifting from the body of a lake early in the morning. You should make this with a back light, if possible, and the lens aperture wide open. Weird effects can sometimes be obtained from the smoke of forest fires which has mixed with fog during the night. The smoke will often form in layers because of the particular air drainage and the picture be glimpsed between the strata. A striking effect can be obtained with a ship emerging from a bank of fog, or if you are living inland, a train coming up out of the fog.

Sunrises and sunsets are fine subjects with which to experiment. You will find that a sunset is much easier to photograph than a sunrise, because with the sunset you are beginning to photograph with a known maximum of light and as the light dies out its photographic value fades out, and you come to a natural finish to the scene; while with a sunrise you are forced

to begin with a weak light and go to a stronger light, which will probably become so strong immediately after the sun rises above the horizon that an halation will form and spoil the end of the scene. Also, at sunset time, there being more dust particles in the air than there are at the beginning of the day, the light is of a better photographic value. Then, too, sunsets happen at a much more convenient time of day than sunrises.

Practically all of the so-called "moon shots" seen in professional motion pictures are really shot with the sun, and only in the very far North is one able to photograph the moon itself, and that only under particular conditions, such as the moon near the horizon and the sun still giving enough light to illuminate the landscape. A shot of this character can be improved if the foreground of the scene contains some body of water to carry the reflection.

One of the trickiest things of nature to photograph is a desert mirage. Many contend that as long as a mirage is an optical illusion it cannot be photographed but such is not the case. Anything that can be seen can be photographed if there is a sufficient amount of light. Two things are necessary to get the desired results: first, underexpose just slightly, by using a stronger filter than you would ordinarily use; and second, use a long focus lens. I have found a six-inch lens to be the best, several times having obtained remarkable effects on California deserts, one in particular with a cloud of dust rising from the surface of the "lake" and shortly afterward an automobile coming out of the synthetic water. I have often photographed trains showing a double image because of the train being reflected in a mirage lake. The best atmospheric conditions for a mirage is the early morning of a hot day with very little wind to bend the heat waves. These same heat waves will serve to add movement to the "water."

In photographing clouds it is well to remember that the cloud itself is reflecting very strong light back toward the camera. For this reason it is advisable to stop down to the next smaller aperture than would normally be used and to use a







91—*Cross Lighting.*
92—*Top Lighting.*
93—*The Sunburst.*







94—*An Odd Camera Angle.*

95—*A Picture Window.*

96—*The Black Sand Beach of Hawaii.*

filter of at least a K2 density, if one is working with panchromatic film. If it is possible to slow down the turns of your camera do so in order that you can accelerate the speed of the clouds, but remember if you slow down your speed you must again lower your aperture to conform with the change of exposure. When the professional cameraman photographs clouds at a slower speed than normal he changes his shutter opening instead of changing his aperture. For instance, he may normally be shooting with a shutter of 170 degrees but a slow-cranked cloud picture would call for a shutter of forty degrees. These are things that can only be learned through experimentation with one's own camera.

Shooting in the rain may be accomplished, but try to have the camera set back out of the rain at least six feet, and photograph the scene with either a cross or a back light, preferably so that the light is reflected where the rain is striking either on a street or a quiet pond. This same suggestion applies to falling snow but you are apt to find that your light is one point stronger than it would be during a rain storm, all other conditions being equal. Don't photograph when the ground is covered with snow without using a ray filter. Just remember that a snowbank reflects as much light as a sandy beach, or a white fleecy cloud.

After a rain storm, while the streets are still wet, is an ideal time to film the fantastic patterns which may be formed by street lights and electric signs. Be sure to have the aperture wide open. The best effects are obtained when the lights are first turned on at dusk.

When working out of doors the best silhouettes can be achieved just before sundown and for possibly ten minutes after, of course shooting with a strong back light. Many an interesting story can be told in silhouette. This form will be of great interest and entertainment if you photograph a group of people and pick them out when projected by the one dimension only of their features.

Unusual effects can be secured under certain lighting condi-

tions by photographing a reflected image in a plate glass window, Scene 95, page 71. Be sure to expose and focus for the window and not for the reflected picture; at the same time allowing one stop more than would be necessary in photographing the picture direct. This same idea can be used in photographing the scenes contained in a garden globe. A scene thus made will be particularly effective if the globe is so situated that it shows automobiles passing in the street or other action as the moving objects will take on many odd forms. Remember once more and focus the camera on the globe and not for the scene itself. I discovered this important point for myself five years ago while photographing into a globe at Lake Louise, in Alberta, and then turned right around, without thinking last summer while taking the same subject, and made the error of focusing on the scene. Result—out of focus film for the ash can. So let me reiterate, focus for the window or the globe and not for the scene.

Some interesting results can be gained by making progressive pictures. Suppose your office window overlooks the construction of a new skyscraper. Building operations have just commenced, or better still, they are now tearing down the old building to make way for the new. Have a set tripod placed near the window so the camera will always be in the same position, (if this is not possible arrange a table or a box, with the angle lines carefully marked so the camera can be replaced from time to time in exactly the same spot), then choose some particular hour of the day, say ten in the morning, and photograph about three feet of the same scene every couple of days when there has been some slight change in the progress of the construction. If your camera is equipped for stop motion it would be preferable to use this method, taking only one frame and at more frequent intervals. A reel of this will show the building rising from the ground to its finished condition in a few minutes and would be a very interesting reel to own. Care must be taken in your judgment of the daily exposure.

At times it is advisable to use an odd camera angle such



98—*"Old Bill," the collie who climbed Mount Adams twice.*



97—*Tropical Twilight.*



99—*At Dusk.*



100—"*The Traveler Hastens Toward the Town.*"



101—*The Miser.*



102—*Poor Film Economy.*

as a worm's-eye view of a skyscraper or tall tree or the masts of a sailing ship, although the subject of odd camera angles is rather a touchy one because the most gratifying results are where the camera sees the same as the majority of human beings would.

An odd effect can be filmed on shipboard if the sea becomes a bit rough by suspending the camera from an upper deck, placing a weight at the lower part of the camera and with the aid of one other person keep the distant horizon level, allowing the ship to really rock about as it may. It is in this way that the real force of the sea and the height of the waves can best be shown, and if you are shooting along the promenade deck it will show the passengers in many grotesque positions as they are attempting to keep their sea legs.

It is a well-known fact that if a motion-picture camera can be operated while slowly moving toward an object, it will give a decided stereoscopic effect to the scene. In studio work this movement is taken care of by the use of a truck known as a "dolly," which is a camera platform on wheels. But in the field this is impractical to operate without having a track built specially for it. A good stunt along these lines for the amateur to try is that of placing a tight, strong wire or cable between two trees and suspending the camera from a pulley which rides along the wire. The camera should be weighted and held steady and then slowly pushed along the track, great care being used to keep it level at all times. If the scene to be photographed has been chosen with due reference to the light, which should be a cross light, a very beautiful stereoscopic effect should be the result. A typical scene to be photographed in this manner would be a person walking along a path in the woods. The reason for this effect is that the cross light gives a roundness to each tree trunk, making each stand out in its relative position to the camera.

These are only a few suggestions to keep the cameraman alive to the fact that his possible pictures are only limited by the amount of his imagination.

Chapter X

ADVENTURES IN PHOTOGRAPHY

BEFORE THE COMING of the automobile nearly every community of the United States was amply supplied with its own brand of wild game. In season the lakes and marshes were crowded with ducks and geese, the prairie states were covered with quail, pheasants, and prairie chickens. The mountain countries held great herds of deer, moose and elk. The timbered states were well populated with bear and cougar. In those days nearly every man was a hunter. Every sportsman was proficient with either shotgun or rifle and with only the slightest pretext a man would find an excuse to leave his business and spend days tramping about the countryside, presumably hunting for wild game. But the automobile and good roads changed all this. Quickly the game disappeared, the most accessible fishing streams soon contained only water; but still the hunter and the fisherman continued in their search for pleasure.

The game has gone, but the spirit of the out-of-doors calls stronger than ever, and many a man who once tramped over mountain and valley hunting the wild things in their haunts has since discovered that his real reason for becoming a hunter was really his wish to get into the open, and be alone.

Through this changing of conditions our hunter has now become, in many cases, a camera enthusiast. His lust for killing has subsided. He finds a greater thrill than ever in capturing some wild creature in a picture, and then leaving it to continue the life it was intended for. He still has the enthusiasm of the hunt, the enjoyment of the day out-of-doors and, if

successful, a picture of the high point of his own ability as a hunter. He soon learns that the capture of even a landscape under just the right lighting conditions contains as much thrill as the bagging of a flock of ducks.

To the man, who is adventurously inclined, the hunt for pictures will lead him as far afield and into as many thrills as he used to find in the days when he packed a gun and thought that a photographer was an old gentleman who hid his head in a dark cloth and amused children by showing them a "birdie."

Early in July in 1913, having finished all of the cultivating that was necessary for that summer on my ranch in the foothills of the Cascade Mountains in Washington, I decided that the time was ripe for a vacation. It was not difficult to sell the same idea to a neighboring rancher, so hitching up a pair of cayuse and throwing in the camp equipment and grub for two weeks we climbed into the buckboard and started for Mt. Adams, a beautiful snow-capped peak of Southern Washington. An all day trip over mountain roads brought us to the little town of Trout Lake. The next day, after having obtained three pack horses and a packer, we saddled our own ponies and started for the mountains in earnest.

For three days we camped at Cold Springs, getting used to the six-thousand-foot elevation before attempting a bigger climb, and on the 13th of July we crawled out of our blankets at one o'clock in the morning to a breakfast of salt pork and lyonnaise potatoes (what a combination for a mountain climber), and headed for the summit, seven thousand feet above us.

As this is not a story of a mountain climb we will not go into the details of that particular day save to state that when we reached the first summit, at an elevation of 11,500 feet, it was then two o'clock in the afternoon and although it was July, a terrific blizzard was whirling about the middle summit, which was still 800 feet above us. The wind showed its strength in picking up and hurling my sixty-pound collie dog forty feet before he was able to regain his footing in the snow. All chances



103—*The summit of Mount Adams, Washington. Elevation, 12,307 feet, July 17, 1914.*

This is the first moving picture camera ever taken to the top of a snow-capped mountain in the United States.



104—*A crevasse in the Eliot Glacier on the North Side of Mount Hood, Oregon.*



105—"*Old Bill's*" *youngest son, who climbed Mount Adams with his Dad in 1914.*



106—*Photographing the interior regions of a living glacier.*



107—*On the Summit of Mount Hood, Oregon, September 13, 1916. Elevation 11,225 feet.*

of successfully reaching the summit were gone so we had to content ourselves with a wild slide back to the timber line, 6,000 feet below.

On this trip I carried a small still camera and being a real amateur had shot picture after picture without any rhyme or reason. In the winter that followed I caught myself recommending the thrill of mountain climbing to all of my friends. Many times during that winter I showed the best of my kodak pictures (the poorer ones having been secretly destroyed), bragging about the dangers of mountain climbing, but always I noticed my inability to paint the real atmosphere of the wonderful mountain. I often wished that I could take my Eastern friends into the high peaks so that they might enjoy, what seemed to me, the greatest of all outings. I even went so far as to plan to run a pack string the following summer; the only thing that held me back was the amount of work which such a procedure entailed. But one day I had the happy thought that moving pictures of such a trip would capture the spirit where the still pictures had failed, and in this way I would be able to take the mountains to my friends. Naturally with this idea came the question of how to make it commercial, but that is a story all in itself and has no part in this book.

July of 1914 found me once more at timberline on Mt. Adams, accompanied by a crew of six men. This time we were successful in reaching the highest point, the Middle summit, 12,307 feet in the air, and had the satisfaction of knowing that we were the first ever to carry a motion picture camera to the top of a perpetually snow-capped peak in the United States. We had been compelled to camp for two weeks waiting for the right atmospheric conditions before making the climb. It had taken us fourteen hours to carry the two hundred pounds of camera paraphernalia to the summit, and it took eight hours more to struggle back through the rocks and snow to our camp at timberline; but the twenty-two hours of putting one foot ahead of the other had been well worth the effort. Upon our return to Portland, Oregon, and the developing of the nega-

108—*The Ford near Fish Lake, Washington, May, 1915.*





109—*In the Heart of the Cascades.*



110—*The old sheep bridge across Hell Roaring Canyon near Mount Adams, Washington.*



111—*All that appears above water of the S. S. Princess Sophia which sank in Lynn Canal, Alaska, with all hands, in the fall of 1918. At the time this scene was taken there were still more than two hundred bodies locked in the vessel.*

tive exposed on the climb we found that we really had a good picture, and aside from the commercial angle it was a great joy to be able to see that trip over again and again while seated in a chair in some theater. We discovered points that had been overlooked because of our exhausted condition during the climb; saw many things that we didn't realize had been happening.

One thought which I wish to bring out to the amateur at this point is the question of not letting his scenes run too long, but to use as many different camera setups as possible and to cut each scene before it becomes tiresome. The training that I had in this regard came about in a peculiar manner. The cameraman, whom I hired on my first trip in the making of this picture, afterwards known as "When the Mountains Call," was Jesse G. Sill of Portland, Oregon. Operating on a shoe string as I was and with a personal financial depression always hanging over my head, I made a typical Scotch-Yankee deal with Mr. Sill. I hired him to crank the camera, furnish the film, develop and print it at 10¢ a foot, I to furnish his traveling and living expenses. At every set-up of the camera I watched him like a hawk because I realized that with every turn of the crank six inches of film passed his lens and I had spent a nickel. A twenty-foot scene and I could almost hear my Scotch ancestors calling to me to "cut." For that reason the picture was edited at the camera, and instead of long drawn-out scenes it held eight, ten and fifteen-foot scenes, some being even as short as six and seven feet. The result was a finished picture with plenty of life, action and snap, as there was not a foot of superfluous film in the entire production.

It must be remembered that since 1914, when the usual camera speed was one foot of film or sixteen pictures to the second, it has now been changed to twenty-four pictures to the second, and the scenes must now necessarily run longer than they did in the old days. But even now a twenty-five foot scene should be an exception, as you will get more satisfaction with fifteen and twenty-foot ones in your finished reel.

Chapter XI

MORE WANDERINGS

LET US QUICKLY pass over the winter following the making of the Mount Adams picture known as "When the Mountains Call." The strangest thing about the motion picture industry is that no matter where a picture is made, it must eventually be taken to New York to be sold. It took me two months from Portland, Oregan to carry this picture to its market in New York City. Having no money it was necessary to book the picture from town to town, going Mahomet one better by making the mountain pay for the ticket across the country. This was followed by five months of peddling this "brain-child" from one distributing company to another before at last disposing of it, although at a slight loss. (If they had ever run out of hot-cake batter at the Child's Restaurants that winter I would have starved to death.)

But the spring of 1915 once more found me back in the foothills of the Cascade Mountains in Washington. For this season I had planned a much longer stay in the mountains and a trip of greater length. We were to go from the Hell Roaring Canyon country, which lies to the east of my old friend Mt. Adams, and then north up the backbone of the Cascades clear to the Canadian line. But there was practically no money. It was necessary to spend a month in the so-called "chiseling" of a pack outfit. Unable to afford a packer for the trip, I bought a book on the subject of "packing," and with the aid of a carpenter's wooden horse and several empty boxes and odd bundles I proceeded to learn the intricacies of the single and double-diamond hitch. Once learned it was never forgotten, and many



112—*The Kickitat Indians spearing salmon at Celilo Falls on the Columbia River.*



113—*The LaViajera in Alaskan waters in the summer of 1919. This boat was sailed from Seattle to Skagway, Alaska, and return in one hundred and one days. She was wrecked ten years later off the coast of Mexico.*



114—*The most delightful camping spot found in twenty years of mountain travel. Mystic Lake on the north side of Mount Rainier, Washington.*



115—*The automobile used in the trip around the border of the United States in 1917. Sixteen thousand miles were covered in ten months. It is seen here in the backwoods near Spirit Lake, Washington.*

times in the following years I was grateful that I knew how to properly pack a horse.

The pack string consisted of my own pet saddle horse, a sore-backed cayuse which I was able to purchase for $10.00 because of the sore back, one, (big, but weak) mule for which I had promised to pay $20.00 sometime, and a driving horse rented for $5.00 a month because she was green and had never been in the mountains. All had to be packed, even the saddle horse, so the cook, cameraman and myself were forced to hit the trail on foot.

As it was early May we were the first ones in over the trail for the season. Our path was littered with fallen trees, snow was still in the high hills, and after we had reached the four-thousand-foot level, we found that we had stepped back into last winter. Our fourth-night camping spot found us 80 miles from the last ranch house, and on the shore of the half-frozen Fish Lake. A cold sleet was falling as we made our camp in the dark. It took hours to get a decent fire going with the winter-soaked wood. But our greatest trouble was that the grass that we had depended upon for our live stock hadn't yet started to grow. We slept in the mud that night with only a tarp across our faces while the four hungry members of the pack string stood under a sheltering tree and arched their backs against the biting mountain wind. But the next morning our troubles increased. A heavy fog settled over our camp, two of the animals had broken loose during the night and disappeared into the forest in search of food, and worst of all the boy who was the cook of this one-horse outfit was almost delirious from the pains of an appendicitis attack. As Andy would say, "That is a mess."

Being four days away from the nearest telephone and at least a hundred miles from a doctor we were at last facing something real. Desperate methods were necessary to save the boy's life. As I understand it now an appendicitis patient should be kept quiet with hot pads and compacts about the body, but that was out of the question in this case so we tried



116—*The picture is where you find it.*

118—*The Surprise Snowfall.*





117—*Not So Hot.*



119—"*Dane the Second*" *Earns His Way.*

the reverse. For two days the lad lay on a bed made of wet boughs covered only by a make-shift canvas tent, with two feet of snow packed around his middle. We darned near froze him to death, but at that we saved his life, for on the third day he was able to be up and about. It was on this same day that the fog lifted, the sun shone down brightly for the first time on the trip, and late in the afternoon the two missing pack animals limped back into camp. Meantime the mule had found our oatmeal sack so he had fared better than the rest. In the next forty-eight hours we took advantage of every hour of daylight; climbed the mountains to the west of Fish Lake, made some camp pictures and finished a one-reel production which was afterwards known as "The Film Hunters."

A long four days walk back to civilization was the next thing on the program. At the end of the trail was the hospital for Ray. The sight of which was not half as welcome to the cook as the first, green, grassy meadow was to that hungry pack string of hay-burners.

Having given up the idea of ever going the lengths of the Cascades with a pack outfit, we spent the majority of that summer photographing in the Lake Chelan country in Northern Washington.

We started early the next season, waiting four weeks in the Olympic Mountains in Western Washington for three days of clear shooting. We climbed the south side of Mt. Hood in Oregon, spent the night on top without blankets, and climbed down the precipitous north side with 75-pound packs on our backs. Our camp fires burned brightly in many different parts of the Cascades that summer. We were learning the ways of the mountains. Our camp cooking was better, experience had taught us many tricks of outdoor photography, the financial depression was slacking a bit, and we proceeded to have the time of our lives.

In 1917 an automobile company dared me to take one of their cars around the outside road of the United States. It took us ten months to travel the 16,000 miles. In those days

most roads were poor and we were stuck many times in the 28 states we crossed, but it was all fun and we got the pictures.

One year was spent in Alaska, the next winter in the West Indies, the next year in England, Scotland, Wales, France, Switzerland and Italy. The trails of Oregon, Washington, British Columbia, Montana, Wyoming, and Idaho became known to me almost as well as the average man learns to know the streets he travels between his home and office. In this search for the beauty spots of the world was always the hope of adventure. Throughout this eighteen years of travel is woven the pleasures of photography, under good and bad conditions. I was usually accompanied by a dog, for it was through such animals I learned what was meant by true companionship. I learned the thrill of glacier travel on many mountains, no two glaciers ever being alike and no two days spent on the same glacier failing to return a different experience. I learned never to put any dependence in mountain weather. I learned that if one sat still long enough and made no suspicious moves that almost every wild creature of the woods would come near enough for a close-up. I learned that newspapers are unnecessary; that I never had a real worry until I had returned to civilization and opened the mail. I learned never to compare one scenic spot with another as every spot has its good features. I learned the joys of the sunrise and sunset. I learned to heartily dislike an office desk. I learned to want a home, but have never been able to find the spot to build it. That the best part of fishing is sitting on the bank. And the one lesson that I have *really* learned is, that if I have a good time I get a good picture. For that reason I say there is pleasure in photography.

Chapter XII

NEARLY A FADEOUT

IN MAY OF 1919 we started in a small auxiliary schooner from Seattle to Skagway, Alaska. We really commenced sailing from Lake Union, as our decrepit three cylinder engine gave out before we reached the first drawbridge. We hoisted the canvas and sailed down the canal (contrary to all harbor laws), blowing the fog horn for the bridges and trusting to luck at the locks. We were loaded with four month's supplies and were limited for deck space, so our lifeboat equipment consisted of one twelve-foot Peterboro canoe, which in smooth water would hold one half of our crew of six.

The next morning, while still in Puget Sound, the lookout spied an empty rowboat floating down with the tide. We came about and picked it up; a sixteen-foot, flat-bottomed boat built of oak and weighing about five hundred pounds. Later on that summer this gift from the sea saved our lives. When we put in at Victoria, B. C. I went ashore and purchased an old, second-hand, outboard motor and thus we made the Captain's Launch.

Much has been written about outboard motors and much has been said that couldn't be written. The latter variety was the kind of motor our little putt-putt turned out to be, and thereby hangs the tale.

We soon learned that our power plant would never start by just plain cranking. First it was necessary to take out the spark plug and heat it with burning waste for five minutes, then turn the motor over several times, sucking the flames into the cylinder. After four more minutes of this we would hastily

screw in the plug, attach the wires, turn the crank, and, if we hadn't taken more than forty-five seconds in this final operation, it would often start on the seventh or fifteenth turn. After that only a few things could stop it. But even if we only stopped for a moment the starting process was always the same.

One day, three weeks after leaving Seattle found the skipper and myself out viewing Alaska from our motor boat. The past two days we had been cruising with the schooner on that part of the Inland Passage known as Fitzhugh Sound. After leaving the schooner anchored in a small protected bay, we had cruised several miles down the east shore of the Sound until we encountered the floe ice as the tide brought it out of Le Conte Bay and carried it into deep water.

Five miles up the bay Le Conte Glacier was "calving" great icebergs as it moved down the mountains' side. These bergs would float down the swift tide, which often drops twenty feet at this point. The small ice would pass through the narrows and out into the Sound but the large bergs would ground on the sandbar two hundred feet under water. We were weaving in and out of the narrow lanes of water surrounding the bergs, in an attempt to bag a pair of innocent looking ducks, when suddenly we hit a cake of floe ice. The shock was severe and the little putt-putt stopped dead in her tracks. Before we could get the oars and ride to safety the pack closed in on us and we were caught.

The tide had changed and was carrying the small ice back from the sea, jamming us against the grounded bergs as the floe tried to pass into the bay. Soon we were in the center of a twenty-acre patch of grinding, crunching ice, a mile from the nearest shore. Almost instantly the small body of water which had been left to float our boat disappeared and we found ourselves still sitting in the boat but jammed high into the air by the ever-moving ice pack. The surrounding salt water was as cold as the ice itself. Swimming was impossible. Our only hope was that, somehow, the little oak boat might avoid being crushed by the tons and tons of ice.



120, 121—*The Ice Pack in Le Conte Bay, Alaska, in June, 1919.*



122—*The Skipper Studies the Problem.*



123—*The Author Repents.*



124—*Awaiting Adventure.*

The din was terrific as the swift-moving tide raised the broken mass. Occasionally a long, spear-shaped berg would escape from the pressure below, shoot into the air like a green pea snapped from a pod, only to fall back and add to the weight of the field. Even if we could have shouted above this terrible din of breaking ice there was no one to hear us. The schooner was anchored ten miles away and around the point, and the nearest habitation was thirty miles away. We couldn't expect help from anyone. Our only hope must come from the ocean itself. If the boat would last long enough the change of tide might aid us in getting back to land. For every second in the next three hours we stared Death in the face, our hands literally tied. Little was said during the first hour; then, more to take our minds from our situation than anything else we set up the motion picture camera and ground a few scenes, not with any idea of ever showing the pictures, but just to be doing something. We also made a few stills. In Scene 122, page 91, the skipper is contemplating his chances of taking a few quick steps across the small ice in an attempt to reach the berg in the background. While still undecided as to whether or not it would be a good idea, the berg which was as big as an office building slowly turned over.

I wish to call your attention to the peculiar "gone" expression in the author's face as denoted in Scene 123, page 91. With great difficulty he is trying to visualize a grove of orange trees in full bloom. Under the circumstances we forgot about so-called pictorial composition, focal points, camera placement, lighting and exposure as you can readily see by the poor quality of the pictures on page 91. But this was no time for the enjoyment of photography. Even if this book had been written at that time we wouldn't have cared to read it. We had a magazine in the boat, and during the third hour the skipper spent most of his time reading an adventure story, but he threw the magazine away in disgust when he discovered that it was a serial. It was a waste of time; there was no assurance he would ever see the next issue.

For several minutes the ice had been comparatively quiet, the tide had reached slack water, and the next ten minutes would tell whether or not we would ever be able to set another tripod on solid ground. Suddenly the ice started a steady forward movement. The rising tide had lifted the key berg from the bar and the floe was breaking through the ramparts. Faster and faster became the movement until without effort on our part we were pushed and shoved between the largest bergs. As the pack broke up we found ourselves in open water. Without waiting to heat up the engine we grabbed the oars and headed for shore. (On the wrong side of the ice-barrier, but on the shore nevertheless.)

All that long afternoon we stood on the bank and watched as the glacier moved down to the sea. With a great boom and crack, a huge berg of thousands of tons would break loose and drop down the face of the four-hundred-foot cliff, sending forth a veritable tidal wave. We waited hours for the tide to get in such a position that we dared to take another chance, but late in the evening we were able to thread our way out past the bergs and once more reached a broad expanse of open water. The schooner never looked better than it did that night.

UP IN THE AIR

My work for the Educational Pictures Company took me into the mountains of Europe in 1920, the main portion of that year being spent climbing in the Alps of Switzerland. One of my companions that season was a cameraman we shall call George. He knew nothing about the mountains but he spoke excellent English, French, German and Russian, and I used him as an interpreter. His greatest fault was his inability to speak the truth in any language. As my linguistic ability is limited to three syllable English, hotel French, and twenty words of Chinook, you can readily understand why I was kept in hot water throughout my stay in Europe.

But one night in Switzerland George talked too much. We were staying at the Riffelalp, a large hotel several thousand

feet above the town of Zermatt, which lies at the foot of that beautiful peak the Matterhorn. He had the landlord of the inn backed in a corner and they were both speaking a very excited brand of French. George was telling the other man what wonderful aerial photographers we were—that we were even then on our way to India to fly around Mount Everest, and then to cross China by aeroplane. He also explained that I was greatly disappointed, in that I had been unable to charter a plane to fly over the Alps, as my pet ambition was to "shoot" the Matterhorn from the top. The landlord, scenting some free publicity for his hotel, swore that he would get us a plane if it was the last thing he ever did for an American tourist.

The first thing I knew that I was ever wishing to fly over the mountains, was two days later when George came to me with the glad news that the landlord had obtained a plane for me and that it would be at the Montana flying field on Thursday morning. With tears in his eyes he explained that it was only a small machine, that it would only hold the pilot and myself and that he had so wanted to go around the Matterhorn with me but knew that now it would be impossible. Of course I didn't know just how much George had committed himself but I did know him well enough to be sure he had said all that could be said on the subject. There being no way out of it, and much to George's surprise, I accepted his bluff and had him tell the landlord how truly grateful we were to him. I soon found that a three-seater could be had to take the place of the two-seater, and thus was happily able to include my friend George in the little jaunt.

The next day, while waiting at Zermatt for the train, we visited the museum. One large room held many show cases of the relics of ill-fated climbs. To each ice-axe or tin cup or hat or pair of shoes, was tied a card giving the name of the one-time owner, the date he fell, how far he fell, and in many instances, who fell with him. When the curator of the museum learned through George that we were about to *fly* over the Matterhorn he led us to one of the tables and pointed out a



128—*The plane used in the flight over the Matterhorn in 1920.*



125—*The Matterhorn, noblest peak in Switzerland, Elevation 14,700 feet.*



126—*The Matterhorn from an elevation of 14,000 feet, showing the Italian side.*



127—*Looking back at the Matterhorn as the plane continues its way toward Mt. Blanc, the highest peak in Europe.*

The ridge to the right of the summit of the Matterhorn is the one over which the plane dropped three hundred feet.

vacant space at one end of the case. With a broad grin on his face he slowly looked down at my boots and said, "Your shoes will just fit in my empty case. What is the name, please?"

Leaving the train at Visp we got the car we had left there two weeks before and drove to Brigue for the night. And here began a series of bad omens that would have made a superstitious man forget all about aeroplanes and mountain flying. As we registered at the inn the porter pointed out a cloth-covered statue in the tiny courtyard and asked us if we, as Americans, wouldn't like to donate something to it. Upon inquiry we found that the statue was to be unveiled the next day and that it had been erected to the memory of all Swiss aviators who had lost their lives in attempts to cross the Alps.

After dinner, while sitting on the porch and staring at the shroud-covered figure in the courtyard, the landlord's son approached and inquired who was to be our pilot the next day. When I told him he slowly shook his head, saying, "It is too bad you cannot obtain Monsieur So-and-so." The reason I couldn't get Monsieur So-and-so, was because he had crashed in the mountains two weeks before and they hadn't found his body yet.

We left the inn at daylight the next morning as we were due at the flying field, fifty miles away, at seven-thirty. Driving out of the courtyard a black cat scuttled across our path. Ten miles down the road I narrowly missed a collision with an undertaker's wagon. Rounding a sharp curve into the main square of the little town of Montana we plumped right into an early morning funeral. We stepped out of the car and had to stand hat in hand for twenty minutes. We arrived at the field on time but without breakfast. No plane in sight—only a few flags to show us that it really was a landing field. At eleven o'clock a messenger from a nearby hotel arrived on foot and informed us that the aeroplane had been unable to leave the ground at Berne because of a strong wind but the pilot would try again the following morning. So we spent the rest of the day waiting for Friday.

It was a small Fokker plane with a two-hundred-horse-power

Benz motor, and capable of doing one hundred miles per hour. I couldn't help but wonder if they had to heat the spark plugs before cranking. As there were no extra straps or ropes George and I used our belts to lash the camera to the fuselage. The aviation company charged us $450.00 for the three-hour flight, and they didn't furnish parachutes.

As we left the ground a man dashed after us wildly waving a paper and shouting for us to come back. He had forgotten to have us sign the liability waiver. He must have spent an uncomfortable morning.

For the entire flight of three hundred miles we never saw a moving object on the ground, not even a cow and you have to go awfully high to get above the cows in Switzerland. At the 8,000-foot level we came out of the smoke and haze and into wonderfully clear atmosphere. When we got above the town of Visp we turned to the right and, leaving the Rhone Valley, we drove into the higher mountain country.

The pilot, Cartier, was the only one lashed in, and as both George and I had to stand up to make either stills or motion pictures, every little air pocket would jiggle us a bit. The air around the peaks seemed to be filled with twenty-foot holes and bumps. It was just as well that we weren't burdened with parachutes as the ground below us would have made mighty poor landing, and poorer walking back, the only landing field for one hundred and fifty miles being the one from which we had taken off.

We passed over our friend in the museum at Zermatt and then over the Riffelalp, across the Gorner Grat Glacier and then hovered over Italy for a few seconds. As we swooped over the top of the great cliff on the southwest corner of the Matterhorn we struck a gigantic air pocket and started falling. As the plane dropped away I was thrown completely out of the fuselage, just barely catching the strap on the top of the Debrie camera as it dropped past me. George was luckier than I as his feet caught in the tripod and he was soon able to pull himself back into the plane. Hanging on to the plunging plane

with both hands he was powerless to aid me. The plane was falling very fast but on an even keel, and I continued trailing it down through the air pocket with my feet high above the upper wing of the biplane, hanging on to the camera strap with just four fingers of one hand.

In my up-side-down position I could hear the wind whistling through the loose stays as the whirling propeller almost shook the wood and canvas to pieces. The propeller was turning twice as fast as it should and our greatest danger was that the engine would shake itself out of the frame before the propeller could bite into heavier air.

Even in my position, I was grateful to notice that the pilot was staring straight ahead with all his attention on manipulating the ship, and not watching my acrobatics. By this time we had dropped three hundred feet right along the face of the cliff and the plane was beginning to bounce as it hit the top of an up-draft. As the fall was being checked I pulled myself back to a standing position in the fuselage and yelled to George to grind. We got the next hundred feet of the fall in the camera, the result being that of the old Matterhorn jerking crazily in the air.

We came out of the drop, thanks to a clever pilot and after nearly scraping the rudder off on the cliff side, struck heavier air and were able to fly forward once more.

We circled the peak as we climbed, then passed over the top, clearing it by two hundred feet, and turned west. Thirty minutes later we were flying over the Northeast corner of Mt. Blanc, the highest peak in Europe and had reached an altitude of 17,000 feet. The thermometer stood at ten above zero on this beautiful August day, the tips of our ears were frozen and we only had a few feet of film left in the camera. As I was nearest the Swiss pilot, who only understood French or German, it was up to me to give him the orders. To listen he had to shut off the motor, and when you shut off the motor of an airplane it generally drops. Ours was no exception.

I tapped Cartier on the shoulder—he shut off the gas—the

propeller stopped whirring—and I commenced my story. I didn't speak in either French or German but rather in a tongue that might be termed European. As near as I can recall, this is what I told him, as I kept my eyes glued on that idling propeller. "Oui! Oui! Sehr Kalt pellicule allus gone—for the love of Mike, gie hime damn pronto—Oui! Oui!" It was necessary to yell this four times before he understood it all and in the meantime we had dropped seven thousand feet. But we still had some good air under us and thirty minutes later we landed safely on the Montana field after seeing the tops of more mountains in three hours than we ever thought grew outdoors.

Many splendid mountain flights have been accomplished since we flew over the Alps in 1920, but I firmly believe that our flight holds the record for being the poorest planned expedition that ever successfully trod the upper air.

But it's a wonderful feeling to know that the picture is in the box.

Chapter XIII

THE PICTURE WE DIDN'T GET

ONE YEAR I PLANNED a rather ambitious trip, that of personally conducting two canoes down Clarke's Fork River in Montana, the Pend Oreille River, and then into the Columbia River to the sea, a voyage of approximately 1200 miles. I wrote to the Adventure Magazine for data regarding the rapids and falls that would be met on this trip, and also the feasibility of the undertaking. In due course of time the answer came back that it couldn't be done with any degree of safety and that it was a good idea to *forget*.

So one night early in July found us encamped on the banks of Clarke's Fork just below the town of Thompson's Falls, Montana. The party consisted of a cook, two actors, my assistant and myself and about eight hundred pounds of duffle. After launching the two 16-foot canoes, which were to carry all of this outfit and five passengers, in the quiet back-water of the river, I discovered to my astonishment that I was the only one of the group that had ever been in a canoe. The moonlit evening was spent by my teaching the boys the various uses of the paddle. After watching our nautical class for a half hour the cook silently stole off to town returning about eleven o'clock with a rowboat which he had purchased for $9.00 and which he emphatically informed us was his own personal property, and was to be used by him in preference to either one of the canoes.

After an early breakfast next morning we stowed the cameras, film, and camp duffle into the two canoes. The cook placed all of the kitchen utensils and three beds in his own boat, and we shoved off, bound for Astoria and the Sea, twelve hundred

miles away. Mac, who was supposed to be an actor, but who was really a writer friend of mine from New York in search of rest and adventure, was the bow-paddle in my canoe. We led the parade, followed by Joe, a New York actor on his first Western trip, and Jack, my assistant. Dee brought up the rear in his $9.00 boat. It was an exhilarating moment as the rushing current grabbed hold of our heavily laden boats and swept us down the stream.

We couldn't help but compare this mode of travel with the slow plodding pack train. Here we were always able to get fresh water, were not bothered with a string of pack animals, always sure of a beautiful camping spot for every night, traveling at no transportation expense, and with only the slightest effort. What more could a Scotchman ask for?

In twenty minutes we had covered three miles, Mac seemed to have caught on to the proper stroke for his paddle, and as I glanced back I noticed the boys were keeping our same speed although about two hundred feet behind us. Just ahead I saw the precipitous cliff of our first canyon and deeming it advisable to reconnoiter a bit before starting through, waved the other boats in toward shore, where we landed. I walked forward alone about a quarter of a mile, climbed to the top of the cliff and looked down into the river which we were to traverse. Just at the head of the canyon I noticed a small whirlpool form. It lasted for a minute or so, filled and disappeared. I timed it and in five minutes it showed again. As far as I could see down the river it was our only obstruction for the next two miles and I easily reasoned that it probably wouldn't be there when we passed through.

Going back to the group I warned the boys of the eddy, told them to keep their eyes open for rocks and we shoved off. The current grabbed us and within a minute we were at the head of the canyon. We passed safely over the spot where I had seen the eddy, and I was about to speak to Mac, advising him of the fact, when I noticed that he was in a very grotesque position. His arms were above his head and he was lying in

129—*Snowed in South of Glacier Peak, Washington, October, 1916.*



130—*Dodging the Rocks in the Clackamas River, Oregon.*





131—*Fresh Meat for Mountain Mosquitoes.*



132—*Taking it Easy.*

mid-air as if he were trying to keep his body level on the distant horizon. The next moment I found myself in the river. The whirlpool had formed directly under the canoe, only supporting the tip of the stern and the bow, making a two-foot hole directly under the main portion of our craft. As I went into the river I landed in the pool at the lowest point and got one fleeting glance directly under the boat at the two boys in the following canoe. Their mouths were wide open.

Both Mac and I reached the surface at the same time and grabbed for the canoe, which was now floating up-side down. I felt one of my prize kodaks hit me on my foot as it passed me on its way to the bottom of the river. But all in all things didn't look so bad. We had passed the whirlpool and although we were in the river still clinging to the canoe I had every reason to think that we would make shore in the next few minutes. I glanced around and noticed out in the center of the current, bobbing blithely down the stream, was my knapsack containing among many other things the letter of credit.

As we floated swiftly down the river I could see that the boys had safely passed the point which had caused all our trouble, and as Mac hung on to his end of the canoe and said nothing I took that opportunity to tell him what I thought about whirlpools in general. Wet as I was, my vocabulary was in great shape and I must have told him a chapter full.

Meantime we were swept down stream about a quarter of a mile and I suddenly noticed that we were rushing in toward a large rocky cliff on the right-hand side of the stream. I began to feel the pull of the river on my legs and I recognized it as the clutch of an enormous whirlpool. Instantly everything looked serious and I yelled to Mac to start kicking, but before he could obey the order his end of the canoe slowly disappeared into the vortex of the pool and with it went Mac. In a moment the canoe was standing on end. I was still on the surface and still hanging to my end of it, and I had visions of Mac doing likewise about sixteen feet below the surface of the river. The movement was not swift enough to make one dizzy but still it was

confusing to see the entire landscape going around and around. I glimpsed the boys out in the middle of the river and the next scene was a rocky cliff in the opposite direction. And still no Mac. The boys yelled asking what they could do. I motioned for them to keep away from the whirlpool with the canoe, yelling at the top of my voice for the cook to try and get his blankety blank rowboat within reaching distance. But he had shot too far downstream to be able to row back against the current. It seemed an hour before Mac's head broke the surface of the water. His hat was still on. In one hand he held a paddle, and in the other he clutched my hat which I had lost a quarter of a mile up the river. As he broke the surface he opened his mouth in one great gasp and made a noise like a barking sea lion. If he hadn't looked so serious I think I would have laughed right in his face. He took three or four great gasps of air and disappeared once more as suddenly as he had the first time. When he came to the surface a second time the end of the canoe which had been pointed downward arose almost simultaneously. Mac still held the paddle in one hand, his hat was still on his head, but the other hand had traded my hat for the other paddle.

It is a well-known fact that the clutching fingers of a whirlpool will turn a man's pockets inside out, taking all the loose articles contained therein. I know that I will not be believed in the following statement, but I am going to make it anyway. A moment after my companion reached the surface this time his small black leather bill fold bobbed up directly in front of him. He reached out with his mouth, grabbing it with his teeth, and clamped down on it. From then on there was no chance of any conversation from the lad. (Need I add that Mac originally came from the "Highlands"?)

We were still being forced round and round in the eddy, but its strength had passed for the time being, and the circle was getting larger. I yelled to Mac let go one of his paddles and grab the canoe, and to start kicking towards the center of the river, doing likewise myself. Once more the current grab-

bed us and we were free from that awful drag of the eddy. We shot past the other boys in their canoe as they were attempting to lift my knapsack into their already heavily laden craft. The cook was just about able to hold his own in midstream as he was still trying to row toward us. I yelled to him that we were coming, and to be ready. He swung the stern of his boat broadside of the current as we swept by, and I was able to reach out and grab the rowboat with hand, still clutching frantically to the canoe with the other.

Although our canoe had been completely under water for several minutes while in the whirlpool, there was still enough air inside to allow it to float a few inches above the surface but bottom side up. With Mac at the other end, I in the middle, Dee attempted to row toward shore. But the current was far too strong for him and quickly we drifted on down the river. In that manner we covered nearly another mile until we approached the second bend. It seemed as if we were going to be forced directly onto the rocks at the bottom of the cliff, and I told Mac to draw his legs up under him and to be careful not to break a leg on a submerged rock. Meantime Dee was saying nothing but doing a great deal of heavy rowing. We swept toward the bottom of the cliff. Seemingly the whole outfit would be dashed to pieces in the next instant. Then we struck a cushion of water caused by the current on this sudden turn and were swept to the right, directly along the top of a fifteen-foot fall.

About seventy-five feet from the south bank of the river was a large rock, right at the brink of the fall. There things started to happen. The bow of the rowboat hit the rock first, the cook dropped his oars at the same instant, grabbed the bow line and jumped for the rock. The canoe which I was holding swung around, pinning me between both boats, and the handle of one of the oars, barely missing my head, went through the side of the canoe as if it had been so much paper. Mac lost his hold and went down after more deep-water fish. The rowboat was torn from the cook's grasp, and the boat, canoe and I

went over the falls together. I tried to hang on to the canoe but when the oar punctured its side, it seemed to have lost all its buoyancy, and the empty rowboat right side up looked a lot better to me at the time, so a hundred yards below the falls, I let go. I twisted about, pulled myself in over the stern, and landed in the middle of the boat. Straightening up I saw a hand reach out of the river and grab the side of the rowboat. You're right—it was Mac again. I helped drag him in, and of course you won't believe it, but he still had one paddle in his hand. Glancing around I found that an oar was left in the rowboat and immediately made frantic efforts to row towards shore. It was impossible to force the boat in a straight line with one oar and a paddle, but in a series of large scallops we finally reached the north shore of the river about a mile below the falls, and just at the head of another series of rapids.

We stretched out on the sand to get our breath, I rolled over and looked at Mac. The black pocket-book was still in his mouth. As he reached up and took it from his teeth he spoke for the first time in nearly an hour. "Bob, there was forty dollars in that pocket-book," he said. I lay there several moments trying to think of an appropriate answer. Finally it came. "Mac," I said, "I'll bet you're just about the finest dog-gone under-water swimmer there is in the whole world."

As soon as we got our breath we walked back along the river bank until we sighted the two boys in the other canoe. They were coming down the river, carefully keeping close to the north shore, thus avoiding the bad fall on the lower side. They passed two hundred yards from the cook on his rock without noticing him and were dumbfound when they finally sighted Mac and I safe on shore with the rowboat but no cook. Hastily we explained what had happened, deciding upon how to further our life-saving tactics. Borrowing their extra paddle we followed the others across the river and landed about a mile below the falls. Untying all of the bundles in the good canoe we were able to salvage about seventy-five feet of quarter-inch line. With this we started up the south bank of the river

intent upon completing the rescue. We realized that no matter what happened we would always need a cook.

When we reached the bank opposite the rock at the head of the falls, Dee was waiting for us. There was nothing else he could do *but* wait. After several attempts to throw him a rock to which had been tied the line, we discovered that our rope was just the same length as the distance the cook was from shore. We spent over two hours attempting to reach him. Dee nearly fell off the rock a dozen times as he stretched to get the flying rope. Finally we formed a human chain with one man standing up to his neck in the water, each of the others having hold of his companion's hand, with the fourth man still on the bank so he might get good footing to throw the rock and rope. This lengthened the line nearly ten feet and on the second throw Dee caught it. Quickly he tied it around his waist and dropped off into the raging current. The line being so light we were afraid to attempt to pull him in and he was forced to swim with the current until he was swept into the bank below us.

As Dee came up out of the river, Joe, figuring it was time for a laugh, in a casual manner asked what time it was. As if it were a perfectly natural question, the cook took off his Stetson which had been jammed down on the top of his head, reached into a bandana handkerchief, glanced at his perfectly dry watch and "allowed it was about noon." The following laugh was on Joe, but it relieved the tension. My wrist watch had stopped at five to eight. We had been mighty busy lads trying to save our skins in the passing four hours.

Thus ended the 1200-mile canoe trip to the sea. We hadn't even taken a still picture, all our film was somewhere in the bottom of the river. One canoe and part of the camera equipment had disappeared and I was out fourteen hundred dollars.

With apologies in my heart to Adventure Magazine we arrived in Portland two days later via railroad. Two weeks later we finished a canoe picture called "The Drifters," this time using the Clackamas River in Oregon. But the picture we made didn't contain half the thrills of the one we didn't get.

Chapter XIV

CAMERA ADVICE

ALL PRESENT-DAY cameras, both for still pictures and movies, are good. As we have said before, the camera manufacturers have solved most of the old problems and are now turning out a perfected article in every case. The only question for the user to decide is what use he intends to make of his camera. That is a large question because the answers are likely to be of great variety, and the correct answer for this year may not be the correct answer for next year. This is more true in the professional field than it is in the amateur. The professional has only to think back three years or so to the advent of talking pictures to realize the changes that have taken place in his camera equipment because of the coming of sound.

Again we were threatened recently with the advent of the wide film of 70 millimeters. Luckily this change was postponed or laid aside indefinitely; otherwise we would have had another complete upheaval and change of equipment. The professional cameraman, who has been shooting black and white film, is now faced with a new change to color photography. Every year seems to bring something different, so that no professional can definitely feel that his camera equipment is complete from one year to the next.

In a certain sense this holds true for the amateur, but not to a great degree because the amateur can now get a camera which will serve his needs in making his family and home pictures for some years to come. The changes which affect the amateur will not come from outside demand, but from his

exhausting of the possibilities of his particular camera and because of his own desire to branch out into some other field of photography.

It might be illuminating to mention my own experiences with still cameras in particular, because I started, as nearly all beginners do, with a Brownie camera. After apparently exhausting the possibilities of this type of camera I branched out to the smallest of Kodaks, which is now known as the vest-pocket size. From that I went to a 2¼ by 3¼ and then to a 3A Eastman Kodak which is a 3¼ by 5½ camera, commonly called Post-card size. The next step was a panorama camera, then the focal plane shutter camera of the Graflex type, then to a 5 by 7 view box, followed quickly by an 8 by 10 view box. But finding that the last two mentioned were heavier than I needed and that the Graflex, although a wonderful camera, was really intended for subjects of speed; and the panorama somewhat bulky and adapted to a certain type of pictures which I did not require often enough (Scenes on pages 110 and 112). I found myself back again with a 3A Kodak in my hands. For the last ten years I have used this type almost exclusively for still pictures. The shutter is fast enough for all of the usual demands, the shape of the picture is well suited to securing pictures of good composition, and the greatest pleasure of all is in the ease of operation, the handy size and light weight.

Of course this does not mean that all novice photographers will go through such a lengthy list. The point of it all is that each person in his choice of a camera should first think of its intended use. A cameraman using a Kodak such as described on a motion picture stage would be laughed out of Hollywood, but for my own use I have found this to be the ideal, all-round, still camera.

As this is not intended to be a textbook for professional cameramen, it is needless for me to go through the various features of the professional movie cameras. However in personal, professional picture-taking I have used many makes, the Williamson, Universal, Pathe, De Brie, Akeley, De Vry, Mit-



136—*The Land of Silence.*



137—*When the Mountains Call.*



138—*High Water in Southern France.*



139—*Home of the Night Winds.*

chell, Bell & Howell professional and Bell and Howell Eyemo, all of them being for standard size film. At the present time, I am using two Eyemos, a De Brie, and a Mitchell specially adapted for the Multicolor process, possibly the carrying of such a large amount of equipment for professional movie work furnishing the reason for my choice of a two-pound still camera.

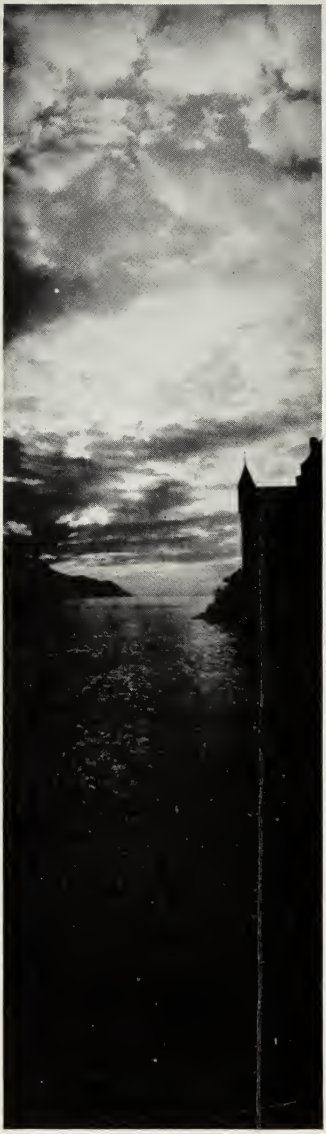
When it comes to movie cameras for amateur use, we are taking into consideration only those with 100 feet capacity, of 16 millimeter film, as we find the 100-foot roll best answering the needs of the average, home picture-maker.

One of the best is, of course, the Eastman Cine Kodak, with its speeds at either 16 or 8 pictures a second, finder vision from either eye or waist level, the usual Eastman quality in precision manufacture, and general excellence in the class field. It can also be adapted to color movies by the use of a color filter and special color film stock.

The Bell and Howell Company, manufacturers of professional movie cameras, also make several models known as the Filmo in 16 millimeter type for amateur use. The Filmo is of the same high degree of workmanship as the grown-up camera, the de luxe model containing features which include a turret carrying a group of three lenses, adaptability for Kodacolor, very sturdy construction, and a leveling device combined in the finder. This company also manufacturers an automatic hand camera called the Eyemo which handles standard, or 35 millimeter film, this camera being used by both amateurs and professionals.

The Victor camera comes in two models, one with three operating speeds, and one which has five operating speeds, visual framing, a revolving turret on which is mounted three lenses. The Victor embraces features of quality workmanship and with its different lenses is still compactly built and thus generally suitable for amateur work.

One of the features of the Cine-Ansco camera is that it has four speeds; half, normal, double, and four times normal for slow motion work. It is light in weight and has interchange-



140—*Lake Geneva, Switzerland.*



141—*Snow Lakes in Glacier National Park, Montana.*

able lens mountings to accommodate five different lenses.

De Vry has a line of four different cameras in the moderate price field, the price varying according to the style of lens used. Then there is a de luxe model with multiple lenses, four speeds, focus-on-film magnifier and other refinements. In this wide range of cameras this company is furnishing the amateur many types to pick from, all of good quality of manufacture.

I have been using the new Stewart-Warner Hollywood model camera in my own 16-millimeter picture-making around home and on trips and have found it quite easy of operation, small and light, as nearly approaching a pocket camera as anything which I have seen. In photographing lively children, dogs and other action subjects the fact that the camera has a fixed focus makes it easy to be assured of getting good pictures readily. Another feature of special interest to the amateur is the simplified gauge on the turning lens mount, marked as to openings to use under various conditions of light, which practically solves the exposure problem at a glance. Because of its quite low price also, one could not hesitate to recommend it for all-round amateur use.

Chapter XV

WHERE TO GO—AND WHEN

BECAUSE THE BASIS of good photography is, after all, being at the right spot at the right time, one of the chief things which will interest the photographer who takes pictures for pleasure will be to consider photographic conditions when he plans his vacation. Perfect weather conditions are ideal photographic conditions, and fortunately the particular spot chosen to visit is at its best for all-round enjoyment at the time when it is best photographically.

The author has attempted to indicate a great many places and the time of the year that he would like to be there, if possible, because that is the time when the atmosphere is clearest, the light is good, and other conditions are favorable for an enjoyable time. Many years have been devoted to traveling over these locations, and the accumulation of information of this kind is something which the professional photographer has had to search out for himself.

In the information which is presented here, no attempt has been made to mention anywhere near all of the beauty spots and interesting places to go because it would be impossible to more than scratch the surface, but by giving points here and there it will aid the photographic enthusiast to judge general conditions and times of the year from the neighborhood which is mentioned.

In most cases the ideal photographic time extends over a much longer period than the particular month which is indicated, but we have attempted to select the best month out of several in which conditions are the best for a pleasant visit as well as ability to obtain good photography.

142—*Saving Steps.*



143—*A Swiss Village at Noontime.*





144—*The Castle of Chillon.*



145—*The Old Stone Postoffice at Tintagel, England.*

For photographic purposes, considering conditions of strength of the light, and other factors, one can roughly divide North America into four, broad, horizontal strips.

In the uppermost tier you will find the most ideal photographic time in August and September, and this band includes practically all of Canada.

In the next tier you would find the states which lie from the Canadian line on the north to the southern boundary of Oregon, Idaho, Wyoming, Colorado (because of its altitude), Nebraska, Iowa, most of Illinois, Indiana, Ohio, Pennsylvania and New Jersey. July and August are the best months in this band.

Dropping down on the map the third tier would include Northern California, Nevada, Utah, Kansas, Northern Oklahoma, Missouri, Arkansas, Kentucky, Tennessee, the Virginias, Delaware, Maryland and North Carolina. May or September.

The lowest tier would include the balance of the states, and here as a general thing, you will find January, February and April your most ideal months for filming.

ALABAMA: Gadsden and Noccalula Falls—*April.*
Tennessee River and Muscle Shoals—*April.*
Huntsville Mountains—*April.*
Coosa and Tallapoosa Rivers near Montgomery.
Gulf Coast near Mobile—*April.*

ARIZONA: Grand Canyon National Park—*May.*
Casa Grande National Monument—*May.*
Kaibab Forest—*May.*
Phoenix—*December.*
Painted Desert—*May.*
Petrified Forest National Monument—*May.*
Canyon de Chelly—*May.*
Papago Saguaro National Monument—*May.*
Chiricahua National Monument—*May.*
Tombstone—*April.*
Navajo National Monument—*May.*
Apache Trail—*April.*
Prescott—Verde Valley—*May.*
Montezuma Castle National Monument—*May.*

ARKANSAS: Ozark Mountains—*May.*
Hot Springs National Park—*May.*
Ouachita Range—*May.*
Boston Mountains—*May.*
Arkansas River—*May.*
Saline River—*May.*

CALIFORNIA: Death Valley and other parts of the Mojave and Colorado deserts in California—*April.*
Coast district of Southern California—*October.*
Santa Catalina and other South Coast islands—*September.*
Sequoia and General Grant National Parks—*June.*
Yosemite National Park—*May.*
Sierra Nevadas—*July.*
Monterey Peninsula—*December.*
Lake Tahoe—*July.*
Redwood Highway—*June.*
Lassen National Park—*June.*
Mt. Shasta—*June.*
San Francisco Bay Region—*January.*

COLORADO: Mesa Verde National Park—*July.*
Rocky Mountain National Park—*July.*
Chief Ouray Highway and San Juan Basin—*July.*

Royal Gorge—*July.*
Pike's Peak and Garden of the Gods—*July.*
Colorado National Monument—*July.*
Holy Cross National Forest—*July.*

CONNECTICUT: The Litchfield Hills—*July.*
Waramaug and Mt. Bushnell State Parks—*July.*
Black Rock State Park—*July.*
Meshomasick State Forest—*July.*
Natchaug Forest and River—*July.*
Connecticut River.
Tunxis Forest—*July.*
Long Island Sound Shore—*July.*

DELAWARE: Delaware Bay—*May.*
Indian River Bay—*May.*
Oak Orchard—*May.*
Brandywine River near Wilmington—*May.*

FLORIDA: Suwanee River—*January.*
Silver Springs near Ocala—*January.*
Gulf Coast of West Florida—*January.*
Crystal River—*January.*
Chassahowitzka River—*January.*
Tampa Bay—*January.*
Everglades along Lake Okeechobee—*January.*
East Coast from Key West to Jacksonville—*January.*

GEORGIA: Chickamauga National Monument—*April.*
Coast near Brunswick—*January.*
Savannah and Savannah River—*March.*

IDAHO: Lake Coeur d' Alene and other points in the Pan Handle—*June.*
Salmon River Country—*July.*
Sawtooth Mountains National Forest—*July.*
Craters of the Moon National Monument—*September.*
Bitter Root Mountains—*July.*
Snake River—*July.*

ILLINOIS: Starved Rock Park—*July.*
Black Hawk State Park—*July.*
White Pine Forest State Park—*July.*
Mississippi Palisades State Park—*July.*
Illinois River and Lakes—*July.*
Savanna Headlands—*July.*
Rock River Area—*July.*
Chain of Lake Region—*July.*



146—*Hula-Hula.*



148—*Hawaii.*



147—*Roaring River Falls near Saint Ann's Bay, Jamaica.*



149—*Long Bay, Jamaica.*

INDIANA: Northeast Lake Section—*July.*
Wabash River Valley—*July.*
Ohio River Valley—*May.*

IOWA: Palisades-Kepler State Park—*July.*
Lacey-Keosauqua Park—*July.*
Lewis and Clark State Park—*July.*
Dolliver Memorial State Park—*July.*
Des Moines River and Ledges State Park—*July.*
Northwest Lake Country—*July.* (Spirit Lake and the Okobojis)

KANSAS: Creek Valley from Marion to Cottonwood Falls —*September.*
Oasis of El Quartelejo.
Smoky Hill Valley.
White Woman Basin.
Scott County State Park.
John Brown Memorial Park.
Blue Hill Upland.
Great Bend of Arkansas Region.
Meade Island.

KENTUCKY: Blue Grass Region—*June.*
Palisades of the Kentucky River—*June.*
Mammoth Cave National Park Area—*June.*
Natural Bridge State Park—*June.*
Cumberland Falls—*June.*
Pine Mountains section of Eastern Kentucky.

LOUISIANA: Bayou Teche—*February.*
Ouachita River—*February.*
New Orleans—*February.*
Bayou Bartholemew—*February.*
Mermentau and Tchefuncta Bayous in Southern Section.
Lake Pontchartrain—*February.*
Cane River Lake—
St. Tammany Parish near Covington.
Lake Charles.
Lakes and Rivers of Cameron Parish—*February.*
Calcasieu River—*February.*

MAINE: Acadia National Park—*August.*
Coast of Maine.
Moosehead Lake.
Lake Sebago.
Kennebec River.
Penobscot River—*August.*

MARYLAND: Chesapeake Bay—*May.*
Chesapeake and Ohio Canal.
Potomac River.
Cumberland Section in Allegheny Range—*June.*
Blue Ridge Mountains—*June.*
Deep Creek Lake—*June.*
Antietam National Monument—*May.*
Susquehanna River near Fort Deposit.
Chaptank River—*May.*

MASSACHUSETTS: Cape Cod and Gloucester—*July.*
The Connecticut Valley—*July.*
Boston—*September.*
Marblehead—*July.*
The Berkshires—*July.*

MICHIGAN: Upper Peninsula—*August.*
State Parks on Lakes Superior, Michigan and Huron.—*August.*
Mackinac Island—*August.*
Porcupine Mountains.
Lake St. Claire—*July.*
Huron Mountains.
Oakland County Lakes—*July.*
Huron National Forest.
Isle Royale—*July.*

MINNESOTA: Northeast Lakes—*August.*
Mississippi River Valley—*September.*
Minnesota River Valley—*September.*
Red Lake—*August.*
Western Lakes—*August.*

MISSISSIPPI: Gulf Coast—*February.*
Vicksburg National Park—*April.*
Natchez—*April.*
Mississippi River from Memphis to Vicksburg —*April.*

MISSOURI: Roaring River State Park—*September.*
Big Spring State Park.
Mississippi River—*September.*
Meramec State Park.
Missouri River Valley—*September.*
Osage River.
Lake of the Ozarks.
Sam A. Baker State Park—*September.*

MONTANA: Bitter Root National Forest—*July.*
Pend d'Oreille River—*June.*
Cabinet Mountains—*June.*
Blackfoot River—*July.*
Glacier National Park—*August.*
Mission Range—*August.*
Rocky Mountains of Montana—*July.*
Beartooth Mountains—*August.*
Flathead Lake—*July.*

NEBRASKA: Chadron State Park—*July.*
Game Reserve near Valentine—*July.*
Platte River—*July.*
Cherry County Lakes—*July.*
Arbor Lodge—*July.*
Scottsbluff National Monument—*July.*

NEVADA: Tonopah, Goldfield, Rhyolite—*April.*
Lehman Caves National Monument—*May.*
Humboldt River—*June.*
Walker River—*June.*
The Lost City near Boulder Dam—*June.*
Virginia City near Reno—*June.*

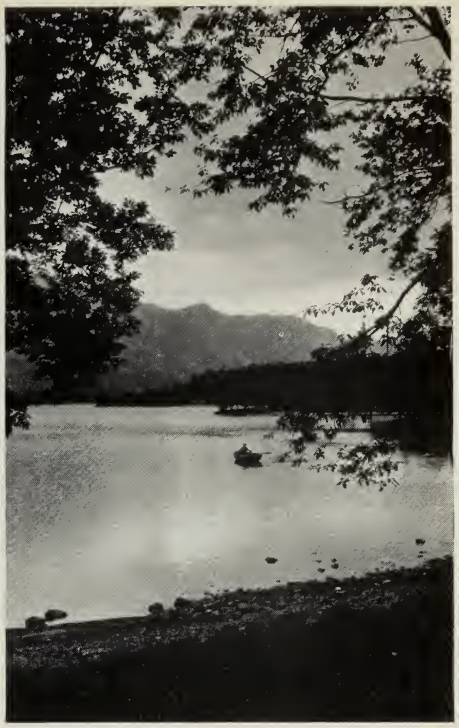
NEW HAMPSHIRE: Lake Gloriette—*August.*
The White Mountains—*August.*
Portsmouth Harbor and Newcastle—*July.*
Crawford's Notch—*August.*
Lake Winnipesaukee—*August.*
Franconia Notch—*August.*
Bretton Woods—*August.*
State Reservation, North Conway—*August.*
Squam Lake—*August.*

NEW JERSEY: Barnegat Bay—*July.*
Delaware Bay—*July.*
Delaware River Valley—*July.*
Swartzwood Lake—State Park—*July.*
Lake Hopatcong—*July.*

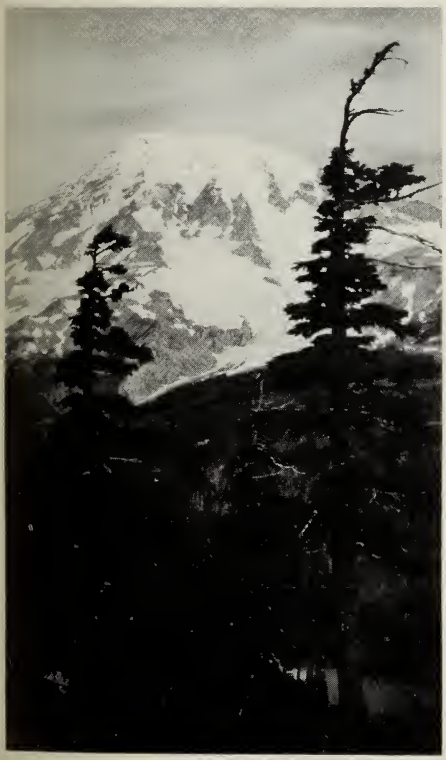
NEW MEXICO: Santa Fe—*April.*
Gran Quivira National Monument—*April.*
Carlsbad Cave National Monument—*April.*
Chaco Canyon National Monument—*April.*
Pueblo Bonito—*April.*
Bandelier National Monument—*April.*
Aztec Ruin National Monument—*April.*
Sangre de Cristo Range—*June.*



150—*Conway Castle, North Wales.*



151—*Bonnie Loch Lomond, Scotland.*



152—*Mount Rainier, Washington.*



153—*Yosemite Falls, California.*

NEW YORK: Niagara Falls—*July.*
The Mohawk Valley—*July.*
New York Harbor and City—*September.*
The Finger Lake Country—*July.*
Adirondacks—*August.*
Ausable Chasm—*August.*
Watkins Glen—*August.*
The Catskills—*July.*
Palisades Interstate Park—Winter Sports.
The Hudson Valley—*July.*
Lake George and Lake Ticonderoga—*August.*
Lake Champlain—*August.*

NORTH CAROLINA: Blue Ridge Mountains—*May.*
Guilford Courthouse National Monument—*September.*
Albemarle Sound—*September.*
Pamlico Sound—*September.*
Great Smoky Mountains National Park—*May.*

NORTH DAKOTA: The Badlands near Medora—*August.*
Turtle Mountains—*August.*
Red River Valley—*August.*
Missouri River Valley—*August.*
Verendrye National Monument.
Devils Lake—*August.*

OHIO: Muskingum, Miami, Maumee and Tuscarawas river valleys—*May.*
The District around Zoar—*May.*
The canal from Canal Dover North—*May.*
Cuyahoga Falls—*May.*
Mound City group at Chillicothe—*May.*
Lake Erie Shore—*July.*

OKLAHOMA: Canadian River—*April.*
Turner Creek and Arbuckle Mountains—*April.*
Platt National Park—*April.*
Arkansas River—*April.*

OREGON: Crater Lake—*July.*
Oregon Coast—*September.*
Rogue River Section—*July.*
Columbia River Highway—*June.*
Eastern Oregon—*September.*
Cascade Mountains, including Mt. Jefferson, Mt. Washington, Mt. Hood and "The Three Sisters" country—*July.*

PENNSYLVANIA: Allegheny National Forest—*July.*
Delaware Water Gap and Delaware River.
Brandywine River.
Susquehanna River.
Cumberland Valley east of Greensburg.
Gettysburg National Monument.
Old Canal routes.
Caledonia State Park.
Lake Wallenpaupack.
Hyner Bridge, Centre County.
State Forests—Susquehannock, Tuscarora, Tioga, Delaware, Bald Eagle, Moskannon, Mont Alto and Tioclaghton.
Presque Isle—*July.*

RHODE ISLAND: Narragansett—*August.*
Newport—*August.*
Pawtucket Valley—*August.*
Block Island—*August.*
Lincoln Woods—*August.*
Greenwich Bay—*August.*

SOUTH CAROLINA: Gardens near Charleston—*April.*
Aiken region—*March.*
Camden region—*April.*
South Carolina Coast—*April.*

SOUTH DAKOTA: The Black Hills—*June.*
Spearfish Canyon—*June.*
Bad Lands National Park—*June.*
Wind Cave National Park—*June.*
Northeastern Lake region—*June.*
Fossil Cycad National Monument.
Custer State Park—*June.*

TENNESSEE: Great Smoky Mountains—*September.*
Shiloh National Monument.
National Monuments near Chattanooga.
Cumberland Gap—*September.*

TEXAS: San Antonio and Old Spanish Missions—*January.*
Davis Mountains—*February.*
Rio Grande Valley—*January.*
Gulf Coast—*January.*
Mineral Wells—*January.*
Battlefield of San Jacinto—*January.*

UTAH: Salt Lake City—*May.*
Zion National Park—*June.*
Rainbow Bridge National Monument—*June.*
Bryce Canyon National Monument—*June.*
Cedar Breaks—*June.*
Dinosaur National Monument—*June.*

VERMONT: The Marble quarries near Rutland—*August.*
Woodstock—*August.*
Granite quarries of Barre—*August.*
Montpelier—*August.*
Stowe and Mt. Mansfield—*August.*
Green Mountains—*August.*
Lake Champlain—*August.*

VIRGINIA: Potomac River—*May.*
James River.
Chesapeake Bay.
Alleghany Mountains—*September.*
Blue Ridge Mountains—*September.*
Rappahannock River—*May.*

WASHINGTON: Cascade Mountains, including Mt. Adams, Mt. St. Helens, Mt. Stuart, Glacier Peak and Mt. Baker—*July.*
Mt. Rainier National Park—*July.*
Lake Chelan—*August.*
Olympic Mountains—*July.*
Coast of Washington—*September.*
Puget Sound and San Juan Islands—*June.*
Eastern Washington—*September.*

WEST VIRGINIA: Alleghany Mountains—*September.*
Springs in Southern Section.
Ohio River from Moundsville to Huntington.
Harper's Ferry.
Monongahela National Forest—*August.*
New River on Midland Trail.
Potomac River—*September.*

WISCONSIN: Dalles of the St. Croix River—*August.*
Dells of the Wisconsin River—*August.*
Devil's Lake—*August.*
Brule State Park—*August.*
Peninsula State Park—*August.*
Nelson-Dewey State Park—*August.*
Perrot State Park—*August.*
Lake Winnebago.
Tower Hill State Park—*August.*
Northwestern Lake Region—*August.*



154—*Mount Baker, Washington, from the Skyline Ridge.*

WYOMING: Beartooth National Forest—*August.*
Yellowstone National Park—*August.*
Jackson Hole Country and Grand Teton National Park—*August.*
Shoshone Mountains—*July.*
Devil's Tower National Monument—*July.*
Big Horn Mountains—*July.*
Wind River Mountains—*July.*
Medicine Bow Mountains—*July.*
Thermopolis Hot Springs—*July.*

CANADA

ALBERTA: Wainwright Buffalo Park—*August.*
Bow River—*August.*
Peace River Country—*August.*
Lake Louise—*August.*
Banff Springs and Rocky Mountain Park—*August.*
Waterton Lakes Park—*August.*
Jasper Park—*August.*

BRITISH COLUMBIA: Okanagan Valley—*September.*
Vancouver Island—*September.*
Cariboo Road along Fraser River—*September.*
Columbia Valley—*September.*
The Inside Passage to Alaska—*August.*
Arrow and Kootenay Lakes—*September.*

MANITOBA: Riding Mountain National Park—*September.*
Rock Lake—*August.*
Lake Winnipeg—*September.*
Assiniboine River.
Nelson River—*September.*
Saskatchewan River near The Pas.
Souris River.
Pembina River Valley—*September.*

MARITIME PROVINCES: St. Johns River, New Brunswick—*September.*
Prince Edward Island—*September.*
Cape Breton Island—*September.*
Newfoundland—*August.*
Nova Scotia Island—*August.*

ONTARIO: Lake Nipigon Forest Reserve—*August.*
Abitibi Lakes.
Niagara River.

Georgian Bay.
Lake Nipissing.
St. Lawrence River.
Lake of the Woods—*August.*

QUEBEC: The Gaspe Peninsula—*September.*
Lachine Rapids.
Gatineau Valley—*September.*
Laurentian Mountains—*September.*
Lakes of Eastern Townships.
Montreal to Quebec Highway—*September.*
Saguenay River—*September.*
St. Maurice Valley.
Lake St. Jean—*September.*
Quebec to Ste Simeon and Chicoutimi Route—*September.*

SASKATCHEWAN: The Qu.'Appelle Valley and Pasqua Lakes—*August.*
Saskatchewan River—*August.*
Duck Lake Region.
Jackfish Lake.
Lost Mountain Lake.
Watrous Provincial Park.
Moose Mountain Provincial Forest.
Duck Mountain Provincial Forest.
Prince Albert National Park.
The Wood Mountain Country—*August.*

THE AUTHORS OF

"Camera Secrets of Hollywood"

PUBLISHER'S NOTE: FOR THE FIRST TIME, at a popular price, and treating the things about photography which every amateur user of a movie camera ought to know, a book has been prepared by men of the widest kind of experience in outdoor and professional motion picture studio photography. The authors of this book have assisted greatly in opening the door to hundreds of common-sense pointers about camera work, which have been thought by the average amateur to be out of his reach, and available only to the inner few movie cameramen in the big studios of Hollywood. The following notes about the authors of the book will be interesting to every person who uses a movie camera or a kodak.

ROBERT C. BRUCE

"The Artist Who Uses a Camera"

The above phrase was aptly fitted by a newspaper critic to Mr. Bruce, producer of world-famous scenic and story motion pictures on the occasion of a screening of a group of short artistic movie gems in a Broadway, New York, Theater, and it has been generally credited that Robert C. Bruce is the Dean of motion picture photographers and producers in the field of filming subjects of the great Out-of-doors in combination with ideas which one might term "human interest."

But the experiences of Bruce, who has produced (to 1931 inclusive) four hundred and fifty-eight pictures shown theatrically all over the world, are particularly interesting to the



133—*A Cannibal Village in "Darkest Hollywood."*



134—*A Typical Hollywood Welcome . . . in hot water from the start.*



135—*"Happy Days Are Here Again."*

average person who is interested in photography, because Bruce was the rankest kind of "rank amateur," possessed of no money, and only had a hankering for the outdoors and a liking for wandering and taking snapshots, and he turned his likes and his natural bent into a profession in which he reached the top in just a few short years.

Forced out West because of ill health, and forced out of a job of ranching because the crops failed, Bruce hit upon the fact that anyone can work better and get things done quicker by doing the things he enjoys doing. Because he liked the outdoors and rambling in the mountains he looked around for the sort of a job which could be done just that way. Deciding that it was photography, and knowing nothing about photography, Mr. Bruce deliberately started to find out something about it in the quickest way.

One of the first things was a camera, which now isn't even as difficult and as expensive as it was then for the amateur; and while he was "promoting" the camera, he set about to study the films on the screen, to minutely figure out how many scenes to the average reel, how long a scene was necessary to cover so much ground, and how many words one could put into a title which lasted just so long on the screen, and a lot of other little things which the casual movie-goer doesn't notice.

When Bruce started out to make his little scenics of the Pacific Northwest he had to learn by painstaking effort a lot of things which the makers of movie cameras have since simplified for the novice, and he worked out over a period of years many principles of composition, lighting, and exposure and hundreds of other details of the "game" which he has now put into the interesting chapters of this book.

Mr. Bruce had what the average movie photographer in the amateur ranks has today, a liking for registering the beauties of nature, for catching the interesting and amusing everyday doings of children and dogs, and just folks. Then he put into these pictures the soul of an artist, the human philosophy of the old mountaineer, and the skill of a painstaking workman.

Very active at the present time, Mr. Bruce has just completed another year's product for the motion picture screens of the world, in his Outdoor Talking Pictures which are distributed by Paramount, and in the making of these pictures and in those which for many years were released under the banner of Educational Film Exchanges, his travels have carried him to almost every country of the world, and to the most interesting scenic parts of the United States.

His formula of making pictures is of particular value to the newcomer to movie-making. He always tried to make a painting where the average cameraman would just get a picture.

The great point to the success of Bruce, the camera artist, is that he has definitely proven that *anyone,* with a liking for photography and observing only a few simple rules, can make just as good pictures as the highest paid technical cameraman who is photographing the stars and the dramas of the great Movie capital.

PAT DOWLING

Who Writes from the Inside of the Movie Studios

Pat Dowling, co-author with Robert C. Bruce of "Camera Secrets of Hollywood" is a practical-minded and experienced studio executive who has assisted in furnishing to the amateur movie maker some useful pointers in filming. It is through the observance of some non-technical and common-garden-variety of principles that the amateur movie camerman can make quality pictures and thus get just twice the enjoyment and satisfaction out of his hobby, and also have the elements in his films which will make him proud to turn over to his youngsters many years later.

Dowling, who is now the producer of commercial and advertising films for Metropolitan Sound Studios in Hollywood, has spent the last eighteen years actively working in various branches of studio activity. For many years he was associated

with the Christie Brothers, pioneer Hollywood producers, as publicity and advertising director.

From many years of observance of studio methods he is qualified to write from the inside of movie-making. From his studio desk, he has noted carefully many points of movie-making which are set down in matter-of-fact terms in this book for the amateur and home movie-maker.



This Dog-gone Tale is Ended.

Never photograph without a reason;
The better the reason, the better the picture.

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